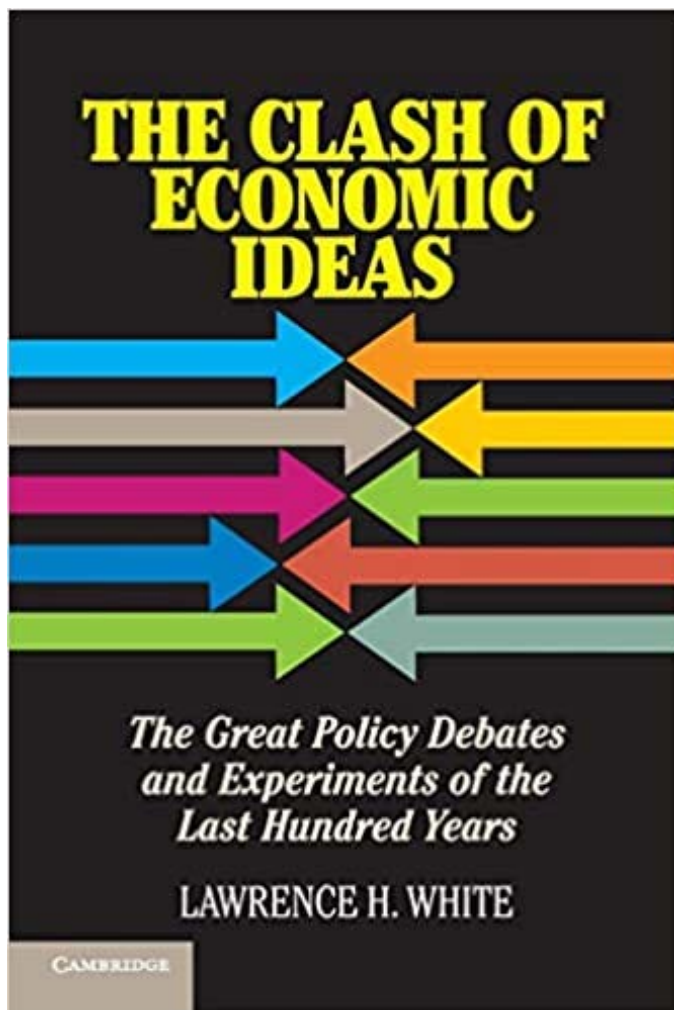


The Clash of Economic Ideas

*The Great Policy Debates and Experiments
of the Last Hundred Years*

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Introduction

The last hundred years have seen dramatic experiments in economic policy: the adoption of central banking in the United States and elsewhere; command economies during the First World War; communist central planning in the Soviet Union, Eastern Europe, and China; fascism in Mussolini's Italy; National Socialism in Hitler's Germany; the New Deal in Roosevelt's United States; the Bretton Woods international monetary system and the adoption of Keynesian macroeconomic policies after the Second World War; major nationalizations in postwar Great Britain; the reemergence of free-market principles in postwar Germany; Soviet-style Five-Year Plans in India; the final abandonment of gold in favor of a system of fluctuating exchange rates among unanchored government fiat monies; regulation and deregulation and reregulation around the globe; the collapse and repudiation of communism in Russia and Eastern Europe; market-led growth policies in the East Asian "tigers" and then in China and India; "neoliberal" policies promoting the globalization of economic activities. In recent years an unhappy sequence – a worldwide housing credit bubble, followed by the collapse of mammoth financial institutions, followed by expensive government bailouts and takeovers, followed by record-breaking budget deficits and fiscal crises – has returned the issues of monetary policy, regulation, nationalization, and fiscal policy to the front of the economic policy stage across the developed world.

Behind these movements and countermovements in economic policy lies an ongoing and often dramatic clash of economic ideas. The chapters that follow trace the connections running from historical events to debates among economists, and from economic ideas to major economic policy experiments. They will dig selectively into the history of economic doctrines – back to Adam Smith when necessary – to understand how the ideas originated and developed over time to take the forms that they did.

Economists are notorious for the frequency of their policy disagreements. “If all the economists were laid end to end, they still would not reach a conclusion,” goes one version of a witticism sometimes attributed (without evidence) to George Bernard Shaw. Because this book focuses on disagreements, a disclaimer is in order. The immediately policy-relevant parts of economic thought are not the whole of economic thought, and the other parts involve somewhat less disputation and more collaboration. Because the noneconomist hears much less about economists’ policy-detached work, which focuses mainly on technical issues in dissecting and understanding observed economic phenomena, it is easy to form the false impression that disagreements over policy occupy more of the typical professional economist’s efforts than they do. The economist George Stigler once rightly noted:

The proposition that the economist is not addicted to taking frequent and disputatious policy positions will appear incredible to most noneconomists, and implausible to many economists. The reason, I believe, for this opinion is that in talking to a noneconomist, there is hardly anything in economics except policy for the economist to talk about. The layman would find [the economist’s technical work] ... quite incomprehensible. The typical article in a professional journal is unrelated to public policy – and often apparently unrelated to this world.¹

In this book the focus is on economic theory and empirical work that *are* related to public policy, though much of the literature was written for other economists rather than for the layman. The chapters look into the substance and impact of the disputed positions. How have economists thought – and argued – about the great economic policy issues? How have they sometimes influenced policy and institutional design?

Given the book’s focus on the policy-relevant parts of economics, it is natural to proceed policy issue by policy issue, framing each issue with an important historical debate or policy experiment. This approach contrasts with encyclopedic histories of economic thought that proceed thinker by thinker in chronological order, beginning with the ancients or the Scholastics or the mercantilists. Within each chapter, when necessary to explain how economists came to think as they did about the issue at hand, there will be flashbacks to the theoretical developments and debates of previous centuries. If a defense of this nonlinear approach is needed, one has been offered by the filmmaker Quentin Tarantino, who told a British interviewer: “When

¹ George Stigler, “The Economist as Preacher,” in Kurt R. Leube and Thomas Gale Moore, eds., *The Essence of Stigler* (Stanford, CA: Hoover Institution Press, 1986), p. 305.

I made *Reservoir Dogs* and *Pulp Fiction* nonlinear, I was not just doing it to show what a clever boy I was. Those stories were better served dramatically to be done the way I did them.”² Sometimes the most vivid way to tell the story of an intellectual debate similarly involves flashbacks. Thus the reader should not think of the chapters that follow as chronologically scrambled or filled with detours. Think of them as *Tarantinoesque* – only with more polite language and slightly less bloodshed.

AN OVERVIEW OF THE COMING CHAPTERS

The episodes and debates examined here were chosen for their historical importance and for the light they shed on how the rival positions have evolved that are held in today’s major disagreements over economic policy. Policy-relevant theorizing rarely arises in a self-contained ivory tower, or purely in response to other theories. Economists read the newspapers. Theory develops to grapple with the issues and events of the day. This is why the chapters use the history of the last one hundred years to frame the economic policy debates.

Chapter 1 sets the stage, describing economic thought on the verge of the First World War. It introduces two figures who will reappear throughout the book, the English economist John Maynard Keynes and the Austrian economist Friedrich A. Hayek. Each subsequent chapter begins with a major economic problem that triggered or revived debate among economists, or a policy experiment to which economists contributed. **Chapter 2** examines the issue of central economic planning versus the market price system, starkly posed by the Bolshevik Revolution of 1917 and developed in the crucial “socialist calculation debate.” **Chapter 3** examines pre-Keynesian business cycle theory, in particular the theory developed by Hayek and other Austrian economists, in light of the boom of the Roaring Twenties that ended in the crash of 1929. The New Deal policy experiment of the early 1930s followed in the United States, and **Chapter 4** traces its origins to the institutionalist school of economics, especially as represented by the economist Rexford G. Tugwell. The Great Depression dragged on. **Chapter 5** relates how Keynes’s 1936 book *The General Theory of Employment, Interest, and Money* fomented a revolution in economic thinking about the causes of ups and downs in the economy as a whole.

² Quentin Tarantino, “Interview with Quentin Tarantino,” *Guardian*, 5 January 1998, http://film.guardian.co.uk/Guardian_NFT/interview/0,,78433,00.html.

Chapter 6 focuses on a very different book, Hayek's *Road to Serfdom* of 1944, which grew out of his concern about the dangers of continuing the central planning policies pursued during the Second World War. In the immediate postwar period, very different economic policy paths were taken by different nations. Chapter 7 chronicles the nationalizations undertaken by the Labour Party in Great Britain and traces those policies to the socialist ideas that the Fabian Society had tirelessly developed and advocated in the previous six decades. Chapter 8 tells the story of a society with a strongly contrasting policy outlook, the Mont Pelerin Society, which Hayek founded after the war to rally the intellectual opponents of socialism. Chapters 9 and 10 offer case studies of two countries that headed in very different directions and had very different results over the next thirty years. With important input from some Mont Pelerin Society economists, Germany moved in a market-friendly direction and prospered. With important input from Fabian thinkers, India adopted nationalization and quasi-Soviet Five-Year Plans and did not prosper.

The next two chapters examine postwar developments in monetary regimes and policies. Chapter 11 tells the story of the 1944 Bretton Woods conference, how and why Keynes and other economists there hashed out an international monetary system that reduced the role of gold and allowed greater scope for discretionary national monetary policies. The Bretton Woods system collapsed in 1971, for reasons that economists have debated. Its collapse coincided with the onset of a period of high inflation that, Chapter 12 recounts, served as the seedbed for the revival and development of "monetarist" ideas by Milton Friedman and others, who challenged the dominance of Keynesian thinking. Chapter 13 notes the growth of government in the postwar era and contrasts two leading economic theories that see the growth of government through very different lenses: the optimistic-about-government theory of public goods and the cynical-about-government theory of public choice. The growth of international trade in the postwar era frames Chapter 14's discussion of the long-running debate between free traders and protectionists. Chapter 15 examines the clash between Keynesian and "new classical" economists over the benefits and costs of government budget deficits and debt. The debate over deficits and debt has naturally reemerged with the sovereign debt crises of Greece and Ireland in 2010, followed by Portugal in 2011 with Italy and Spain in the wings, and the growing indebtedness of other national governments including those of the United States and the United Kingdom.

DO ECONOMIC IDEAS HAVE CONSEQUENCES?

Does the clash of ideas among economists really matter for practical policy making? Do economic ideas have consequences? Economists have clashed over that issue, too. Both Keynes and Hayek thought that the impact of economic ideas on public policy was profound. In his essay “The Intellectuals and Socialism” Hayek wrote:

[T]he views of the intellectuals influence the politics of tomorrow. . . . What to the contemporary observer appears as the battle of conflicting interests has indeed often been decided long before in a clash of ideas confined to narrow circles.³

Keynes declared, in a passage from his 1936 book *The General Theory of Employment, Interest and Money* that academic economists love to quote (for obvious reasons):

The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back.⁴

Other economists have disputed the hypothesis advanced by Hayek and Keynes. The great Italian economist Vilfredo Pareto offered a diametrically opposed view in his book *The Mind and Society* (1935). In Pareto’s view, the politically dominant interests in a society, calculating what best serves their well-being given the sociopolitical environment, determine both the economic policies that its government chooses and the economic theories that its mainstream academicians adopt. Academic theories are mere window dressing with no impact on the policies chosen.

Pareto summarized his view using the example of international trade policy. When the state of elite opinion, “a psychic state that is in great part the product of individual interests, economic, political, and social, and of the circumstances under which people live,” turns toward protectionism, Pareto argued, a country’s trade policy will eventually change toward protectionism. At the same time, “modifications in [trade theory] will be

³ F. A. Hayek, “The Intellectuals and Socialism,” in *Studies in Philosophy, Politics and Economics* (New York: Simon & Schuster, 1969), p. 179. Hence this book’s title.

⁴ John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (London: Macmillan, 1936), p. 383.

observable and new theories favorable to protection will come into vogue.” Thus a “superficial observer may think that [trade policy] has changed because [trade theory] has changed,” when actually both have changed with interests and circumstances. That theorists influence policy makers is an illusion: “Theoretical discussions ... are not, therefore, very serviceable directly for modifying” policy.⁵

The University of Chicago economist George Stigler took a similarly cynical view. In his well-known essay “The Economist as Preacher” he urged his fellow economists to give up the fond hope that by preaching the merits of economic efficiency to policy makers they could convince them to mend their inefficient ways. In Stigler’s view “the assumption that public policy has often been inefficient because it was based on mistaken views has little to commend it,” because it cannot explain why policies like tariffs persist for decades despite knowledge of their effects. Instead the economist should assume that politicians are pursuing their own goals, distinct from overall prosperity, and that tariffs represent “purposeful action” that achieves the politician’s goals with “tolerable efficiency.” Namely, “Tariffs were redistributing income to groups with substantial political power, not simply expressing the deficient public understanding” of the argument that free trade promotes overall prosperity.⁶ That Stigler bothered to preach this message to his fellow economists, who by the same logic must be considered self-interested pursuers of their own goals when they persist in their preaching ways, is something of a paradox.

In response to Keynes’s previously quoted statement about the influence of the “academic scribbler,” a follower of Pareto commented:

[T]he politician has a vast choice as to the scribbling, since there is almost no hypothesis that has not been expounded at some time by a so-called economist. Hence, it remains true that the politician, not the writer, is the active factor which determines the trend.⁷

Some cases discussed in the chapters that follow seem to fit Pareto’s view, especially cases in which the theoretical rationale for a policy was provided after the fact. Politicians embraced “Keynesian” deficit spending to combat the Great Depression well before interpretations of Keynes’s *General Theory* became available to motivate such policies. (Similar ideas had long been

⁵ Vilfredo Pareto, *The Mind and Society*, vol. 1, ed. Arthur Livingston, trans. Andrew Bongiorno and Arthur Livingston (New York: Harcourt Brace, 1935), p. 168.

⁶ George Stigler, *Essence of Stigler*, pp. 308–9.

⁷ Otto von Mering, “Some Problems of Methodology in Economic Thought,” *American Economic Review* 34 (March 1944, Part I), p. 97.

available, but few respected economists had endorsed them.) Other important cases fit better the view of Keynes and Hayek that academic ideas have had important policy consequences, such as the repeal of the British Corn Law tariff in 1846 (discussed in [Chapter 14](#)) and the formulation of the first New Deal programs of 1933 ([Chapter 4](#)).⁸

THE STRUCTURE OF INTELLECTUAL PRODUCTION

Commercial forests produce trees, which go to sawmills to be turned into lumber, which factories then embody in furniture for ultimate consumers. Hayek's and Keynes's remarks suggest a similar structure to intellectual production. High-level economic researchers produce abstract ideas, which applied economic researchers turn into less abstract policy ideas, which journalists and intellectuals then embody in mass-market books, op-ed pieces, and radio and television commentary for the consumption of policy makers and the public. James M. Buchanan and Richard E. Wagner have described the spread of Keynesian economics in just this way: "The American acceptance of Keynesian ideas proceeded step by step from the Harvard economists, to economists in general, to the journalists, and, finally, to the politicians in power."⁹

At the earliest stage of intellectual production, academic economists seeking to advance their understanding of the world develop ideas that (they hope) will be found useful and novel by other researchers. They distribute their findings through articles in scholarly journals and monographs from university presses. Examples of such economics-for-other-economists discussed in later chapters include Keynes's *The General Theory of Employment, Interest, and Money*, Hayek's *The Pure Theory of Capital*, and Milton Friedman's *A Theory of the Consumption Function*. At the next stage, in applied research, academic and think-tank economists seek to develop the ideas further, particularly by confronting them with historical and statistical evidence, in ways that (they hope) will be useful and interesting to journalists and economics instructors. They publish books for intelligent laymen, textbooks, and reports. Examples include Keynes's *Essays in Persuasion*, Hayek's *The Road to Serfdom*, and Friedman's *Capitalism and Freedom*.

⁸ For a critical take on intellectuals and the impact of their ideas see Thomas Sowell, *Intellectuals and Society* (New York: Basic Books, 2010).

⁹ James M. Buchanan and Richard E. Wagner, *Democracy in Deficit* (San Diego: Academic Press, 1977), p. 6. The most important economist to apply and popularize Keynesian ideas at Harvard during the postwar period was Alvin Hansen, as discussed in [Chapter 15](#).

At the third stage (the divisions here are of course somewhat arbitrary), journalists and sometimes economists themselves sort through and repack-age applied research to provide ideas to policy makers and the general public. They lecture to college students, publish newspaper and magazine columns, write blogs, and appear on TV and radio talk shows. The Nobel laureate economists Friedman and Paul Samuelson wrote regular columns for *Newsweek* magazine. Thomas Sowell, a former student of Friedman, writes a widely syndicated column. Paul Krugman, a former student of Samuelson, writes a column and a blog for the *New York Times*. (Of course, neither Sowell nor Krugman confines the topics of his columns to economics.) The economist John Kenneth Galbraith wrote best-selling books and hosted a PBS series, *The Age of Uncertainty*. Friedman responded with his own PBS series, *Free to Choose*.

At the end-user stage of the production and distribution of economic policy ideas comes real-world political application. If we arrange the stages from top to bottom, with ideas moving downward from the theoretical heights (think “ivory tower”), politics becomes the lowest stage, which some may think appropriate. The real point of picturing intellectual activity this way, though, is to give greater concreteness to the view that to understand economic policy change one needs to understand the preceding developments in economic ideas from pure theory on down.

GOVERNMENTS VERSUS MARKETS

Economic policy ideas clash when their advocates have different views about the role government should play in the economy. As the narrator of the 2002 PBS documentary series *The Commanding Heights* intoned (in his authoritative narrator’s voice), the twentieth century witnessed

a century-long battle as to which would control the commanding heights of the world’s economies – governments or markets; the story of intellectual combat over which economic system would truly benefit mankind. . . .¹⁰

Here the “commanding heights” of an economy – a phrase due to the Russian revolutionary Vladimir Lenin – basically means the institutions that steer the economy by deciding where investment funds go. Government control over the commanding heights is seen in state direction of the major banks and industries (formal state ownership is not necessary if state

¹⁰ *The Commanding Heights Episode One: The Battle of Ideas*, video transcript, http://www.pbs.org/wgbh/commandingheights/shared/minitext/tr_show01.html.

regulation is pervasive enough), dominance of the bond market by government issues, a limited or nonexistent stock exchange for shares in privately owned firms, and possibly a central economic planning board.

Are competitive markets, guided by impersonal forces of profit and loss, better than government command-and-control for directing investment toward the greatest prosperity? The key insight of economics as a discipline – its greatest contribution to understanding the social world and to avoiding harmful policies – is that, under the right conditions, an economic order arises without central design that effectively serves the ends of its participants. In Adam Smith's analysis and famous phrase, investors are "led by an invisible hand" that aligns their private pursuit of profits with (what is no part of their intention) the greatest contribution to the economy's overall prosperity. [Chapter 8](#) directly examines this Smithian idea in detail, while [Chapter 13](#) considers modern challenges to it. But debates over the relative reliability of markets and governments for steering the economy recur in every chapter of the book.

It should be noted that when economists speak of "which economic system would truly benefit mankind," their emphasis is normally on satisfying human preferences as they currently exist, not on morally reforming mankind. In this way they can focus on the cause-and-effect or if-then questions that their economic training equips them to address, and finesse questions of moral philosophy. An economist who says, "If the government imposes and enforces an excise tax on whiskey, then it will reduce the volume of whiskey sold," is advancing a value-neutral or positive proposition. It is as true for the listener who favors allowing whiskey buyers and sellers to satisfy their preferences as it is for the listener who wants to reduce whiskey sales through tax policy when moral reformation proves ineffective.

The ideal of value-freedom (sometimes known by the German term *wertfreiheit*) has a great deal to recommend it in pure economic research. Policy advice, by contrast, can hardly avoid embodying value-laden or normative propositions. A policy commentator whose advice rests on the proposition that "the government *should not* interfere with the satisfaction of consumer preferences as they currently exist" or "a higher average real income in society is better than a lower one" is mixing in a normative proposition – whether controversial or not – that lies outside positive economics. Economists have often left the normative propositions underlying their policy advice implicit. The critic of a policy prescription may reject either the normative presuppositions or the positive analysis that goes into it (or both). For the sake of clarity it is helpful to identify which it is.

Greater preference-satisfaction is reflected in the aspects of life that people care about. For most people these aspects can be judged by measurable indicators like better nutrition, longer life expectancy, more leisure, greater material comfort, a wider variety of enjoyments, and cultural and environmental amenities. Taking *prosperity* as a blanket term for the abundance of means by which individuals can satisfy their preferences, and assuming that most people are concerned to have greater prosperity rather than less, the key question for an economic analysis that speaks to the concerns of most people is, Which economic system – government or market control of the commanding heights – delivers more prosperity? The answer to this question depends on the underlying analytical questions: How and why does each system perform the way it does? Economists who favor free markets with minimal government interference tend to frame the choice as an up-or-down vote on government control. Economists who favor a larger role for government tend to frame the question as one of finding the best mix (or balance) of market and government control.

SOCIALISM VERSUS CAPITALISM

A system of government control over the commanding heights of the economy, over the financial system and major industries, is more simply called *socialism*. There are at least as many different types of socialism, however, as there are different techniques of government control over the commanding heights. The alternative of leaving finance and production in private hands subject to the guidance of free market forces – competition, profit and loss, supply and demand, the price system – is more simply called *capitalism*. This term is equally fraught with complications. “Free-market capitalism” or simply “a free economy” is a clearer way to designate the antithesis of socialism, because phrases like “crony capitalism” and “state capitalism” are often used to refer to an industrial economy molded by government direction rather than guided by free market forces.

Jeffrey Sachs, a Columbia University economist well known for his efforts to persuade the governments of rich nations to give more aid to the governments of poor nations, has summarized the outcome of the twentieth-century battles over economic policy as follows:

Part of what happened is a capitalist revolution at the end of the 20th century. The market economy, the capitalist system, became the only model for the vast majority of the world.¹¹

¹¹ Ibid.

Sachs here used “capitalist system” as a fairly value-neutral synonym for “a market-directed economy.” Others have of course used it less neutrally. Karl Marx in the nineteenth century famously gave the term “capitalist system” (or simply “capitalism”) strongly negative connotations. Just as monarchism is a regime favoring privileged monarchs, and mercantilism is a regime favoring privileged merchants, “capitalism” in the Marxian usage is a regime favoring privileged capitalists, the profit-seeking owners of financial wealth. David N. Balaam and Michael Veseth note that Lenin’s analysis, like Marx’s, “is based on the assumption that it is in capitalism’s nature for the finance and production structures among nations to be biased in favor of the owners of capital.”¹² We will examine Marx’s views in [Chapter 2](#). Capitalism in Marx’s sense implies the exploitation of workers by capitalists. Marx prophesied that modern capitalism, though it had displaced medieval feudalism with a vastly more productive system, would inevitably give way to socialism and finally to communism, a system of rule by labor communes with resources under collective ownership.

The Marxian overtones to the term “capitalism” led Hayek to comment that he himself used the term “only with great reluctance, since with its modern connotations it is itself largely a creation of that socialist interpretation of economic history.” He later explained that the term is “misleading because it suggests a system which mainly benefits the capitalists, while it is in fact a system which imposes upon enterprise a discipline under which the managers chafe and which each endeavours to escape.”¹³ For Hayek as for Adam Smith, the aim of promoting a competitive market economy with decentralized and private property ownership was to further the interests of ordinary workers and consumers, not of businessmen as a class. The clash of economic ideas is distinct from the clash of political interest groups. The central theme of the chapters to come is not a clash over whose interests the economy should serve, but over how best to foster the prosperity of the economy’s average participant.

¹² David N. Balaam and Michael Veseth, *Introduction to International Political Economy*, 2nd ed. (New York: Prentice-Hall, 2001), p. 69.

¹³ F. A. Hayek, “Introduction,” in Hayek, ed., *Capitalism and the Historians* (Chicago: University of Chicago Press, 1954); Hayek, *Law, Legislation, and Liberty*, vol. 1 (Chicago: University of Chicago Press, 1973), p. 62.

The Turn Away from Laissez-Faire

At England's stately University of Cambridge in fall 1905, a clever post-graduate mathematics student named John Maynard Keynes began his first and only course in economics. He would spend eight weeks studying under the renowned Professor Alfred Marshall. During the summer Keynes had read the then-current (third) edition of Marshall's *Principles of Economics*, a synthesis of classical and new doctrines that was the leading economics textbook in the English-speaking world. Marshall was soon impressed with Keynes's talent in economics. So was Keynes himself. "I think I am rather good at it," he confided to an intimate friend, adding, "It is so easy and fascinating to master the principle of these things." A week later he wrote: "Marshall is continually pestering me to turn professional Economist."¹

At an Austrian army encampment on the bank of the Piave River in northern Italy during the last months of the First World War, a lull in combat gave a young lieutenant named Friedrich August von Hayek the chance to open his first economics texts (not counting the socialist pamphlets he had read during college), two books lent to him by a fellow officer. He later wondered why the books had not given him "a permanent distaste for the subject" because they were "as poor specimens of economics as can be imagined." Returning to the University of Vienna after the war, the young veteran "really got hooked" on economics when he discovered a book by the retired professor Carl Menger. Menger's *Principles of Economics* (*Grundsätze der Volkswirtschaftslehre*) of 1871 had colaunched a marginalist-subjectivist revolution in economic theory, a revolution that provided the new ideas in Marshall's synthesis. Hayek found it "such a fascinating book, so satisfying."²

¹ Robert Skidelsky, *John Maynard Keynes*, vol. 1 (London: Macmillan, 1983), pp. 165–6.

² F. A. Hayek, *Hayek on Hayek: An Autobiographical Dialogue*, ed. Stephen Kresge and Leif Wenar (Chicago: University of Chicago Press, 1994), pp. 47–8. Hayek identified the

Keynes and Hayek would come to play leading roles in the clash of economic ideas during the Great Depression. Their ideas have informed the fundamental debates in economic policy ever since. In 2010 and 2011 their intellectual rivalry even became the subject of two viral rap videos.³

JOHN MAYNARD KEYNES

John Maynard Keynes (1883–1946) was the son of the English economist John Neville Keynes. At the University of Cambridge, where his father lectured, he studied mathematics but also pursued interests in philosophy and, as noted, took one economics course from Marshall. After a brief stint in the civil service Keynes began lecturing in the Cambridge economics department in 1909, sponsored by Marshall, and became editor of the *Economic Journal* two years later. In 1915 he became an adviser to, and then an official within, the UK Treasury. Four years later, at age thirty-six, Keynes was a British delegate to the Versailles Peace Conference following the First World War. His best-selling insider's account and critique of the peace treaty, *The Economic Consequences of the Peace* (1919), brought him widespread fame.

In the next three decades Keynes kept busy writing books and articles, lecturing at Cambridge, editing *The Economic Journal*, speculating in the London financial markets, and advising the British government.⁴ In all this activity, Keynes displayed what Daniel Yergin and Joseph Stanislaw have described as a “dazzling, wide-ranging intellect ... combined with chronic social and intellectual rebellion, orneriness, and the lifestyle of a Bloomsbury bohemian and aesthete.”⁵ Although his sexual relationships as a young adult had almost entirely been with men,⁶ Keynes around 1922

authors of the two awful books only as “Gruntzl and Jentsch.” He may have meant Josef Grunzel, *Grundrisse der Wirtschaftspolitik* (Vienna: Hölder, 1909–10), and Carl Jentsch, *Grundbegriffe und Grundsätze der Volkswirtschaft* (Leipzig: Grunow, 1895).

³ “Fear the Boom and Bust” and “Fight of the Century,” written by John Papola and Russ Roberts, available online at econstories.tv. Within a month of its January 2010 release on YouTube the first video had registered more than 800,000 views. In July 2011 its count reached 2.5 million, while the sequel (released April 2011) surpassed 1 million views.

⁴ For a detailed chronology of Keynes's career, see <http://www.maynardkeynes.org/keynes-career-timeline.html>. The authoritative biography is Robert Skidelsky, *John Maynard Keynes*, 3 vols. (London: Macmillan, 1983, 1992, 2000), also available in an abridged single volume (New York: Penguin, 2005).

⁵ Daniel Yergin and Joseph Stanislaw, *The Commanding Heights: The Battle for the World Economy* (New York: Simon & Schuster, 2002), p. 40. Bloomsbury was a fashionable neighborhood in London.

⁶ Keynes recorded his sexual affairs in secret diaries. For some details see the appendix, “A Key for the Prurient: Keynes's Loves, 1901–15,” in D. E. Moggridge, *Maynard Keynes: An Economist's Biography* (London: Routledge, 1992).

surprised his Bloomsbury friends by taking up with Lydia Lopokova, a Russian ballerina. They married in 1925 and remained happily married for the rest of his life.

In *A Tract on Monetary Reform* (1923), Keynes argued against a post-war return to the gold standard at the traditional parity, on the sensible grounds that it would require a painful deflation of prices and wages. The central bank should instead let the exchange rate float and target the price level. In *A Treatise on Money* (1930, 2 vols.), published early in the Great Depression, Keynes offered a theory of the business cycle that drew on the work of his teacher Alfred Marshall and on the Swedish economist Knut Wicksell. Hayek severely criticized the work in a lengthy two-part review. Keynes went back to the drawing board and authored the book for which he is best known, *The General Theory of Employment, Interest, and Money* (1936). There he argued that the economy's current aggregate output is governed by its current aggregate demand, and that the most volatile component of aggregate demand is current investment spending. Keynes's diagnosis of the Great Depression boiled down to: investors had lost their nerve. His remedy: government must expand its spending to boost aggregate demand and particularly investment. We will consider this theory and its predecessors in more detail in [Chapter 5](#).

FRIEDRICH A. HAYEK

Friedrich August von Hayek (1899–1992) was likewise born into an intellectual family, his father a professor of botany at the University of Vienna. After serving the last year of the First World War as a draftee on the Italian front, Hayek returned home to study economics and psychology at the University of Vienna, finally choosing economics in part because the job prospects were better. He studied with Friedrich von Wieser, a follower of the pioneering neoclassical economist Carl Menger (whose ideas are discussed in [Chapter 8](#)). After graduation he secured a job working under Vienna's leading economist, Ludwig von Mises. From March 1923 to May 1924 Hayek took a leave of absence to visit the United States, where he met many of the leading American economists of the day. After his return to Vienna he headed a business cycle research institute that Mises had founded.

Initially socialist in his sympathies as a student, Hayek was deeply influenced by Mises's critical book on *Socialism* (1922), and later reinforced Mises's arguments with his own critique of contemporary "market socialist" ideas (see [Chapter 2](#)). A collection of Hayek's articles, *Individualism and*

Economic Order (1948), included his critiques of market socialism and also important essays on crucial role of market prices as signals that enable society to coordinate the efforts of millions of decentralized decision-makers. Hayek emphasized the “marvel” that the price system achieves an intricate economic order coordinating millions of plans and bits of dispersed knowledge – thereby allowing the efficient use of resources – without central design.⁷

Hayek’s early works were mostly devoted to the problem of business cycles. He wrote *Monetary Theory and the Trade Cycle* (German edition 1929) and *Prices and Production* (1931), the latter in English based on guest lectures Hayek had given at the London School of Economics. The LSE economics department headed by Lionel Robbins hired Hayek in the wake of the lectures, and he taught there until 1950. In Hayek’s business-cycle theory, based primarily on earlier work by Mises and Wicksell, the economic boom period is fueled by artificially cheap credit. (Both Keynes and Hayek drew from Wicksell’s work, but they drew from different parts.) The credit-fueled boom inevitably ends in bust because the unsustainably low interest rate has lured investment into forms that turn unprofitable when, as it must, the interest rate rises toward equilibrium. We will consider this theory and its predecessors in detail in [Chapter 3](#). *Prices and Production* was severely criticized by Keynes and others. Returning to the drawing board, Hayek published *Profits, Interest, and Investment* (1939) and *The Pure Theory of Capital* (1941).

During the Second World War, Hayek published the popular book for which he is best known, *The Road to Serfdom* (1944). In it he warned of the dangers of central planning for personal and social freedom (see [Chapter 6](#)). Hayek founded the Mont Pelerin Society in 1947 as an organization to rally the few remaining classical liberal intellectuals who shared his opposition to the trend toward a larger government role in the economy and society (see [Chapter 8](#)).

With his research migrating from pure economics into social philosophy, and with his decision to leave his first wife to marry another woman (which estranged him from Robbins), Hayek moved to a position in the

⁷ For an intellectual biography of Hayek see Bruce Caldwell, *Hayek’s Challenge* (Chicago: University of Chicago Press, 2004). See also Gerald P. O’Driscoll, Jr., *Economics as a Coordination Problem: The Contributions of Friedrich A. Hayek* (Kansas City: Sheed Andrews & McMeel, 1977); and G. R. Steele, *The Economics of Friedrich Hayek* (New York: St. Martin’s Press, 1993). For Hayek’s own reminiscences see F. A. Hayek, *Hayek on Hayek: An Autobiographical Dialogue*, ed. Stephen Kresge and Leif Wenar (Chicago: University of Chicago Press, 1994).

Committee on Social Thought at the University of Chicago in 1950.⁸ There he wrote *The Constitution of Liberty* (1960), an exposition of his classical liberal political philosophy. He returned to Europe in 1962 to take a chair at the University of Freiburg in Germany. In 1974 he was corecipient of the Bank of Sweden Memorial Prize in Economic Science in Honor of Alfred Nobel (hereafter we will abbreviate the prize's name). Two years later, at the age of 77, he published a remarkably radical monograph calling for the *Denationalisation of Money*. He returned to the topic of socialism in his final work, *The Fatal Conceit: The Errors of Socialism* (1989).⁹

KEYNES ON THE END OF LAISSEZ-FAIRE

Keynes flatly rejected Adam Smith's doctrine of the invisible hand. In the opening paragraph of a 1924 lecture published in 1926 as an essay entitled "The End of Laissez-Faire" he declared:

The world is *not* so governed from above that private and social interest always coincide. It is *not* so managed here below that in practice they coincide. It is *not* a correct deduction from the principles of economics that enlightened self-interest always operates in the public interest. Nor is it true that self-interest generally *is* enlightened; more often individuals acting separately to promote their own ends are too ignorant or too weak to attain even these.¹⁰

Specifically, Keynes denied that decentralized market forces were adequate for determining the volumes and allocations of saving and investment:

I believe that some coordinated act of intelligent judgement is required as to the scale on which it is desirable that the community as a whole should save, the scale on which these savings should go abroad in the form of foreign investments, and whether the present organisation of the investment market distributes savings along the most nationally productive channels. I do not think that these matters should be left entirely to the chances of private judgement and private profits, as they are at present.¹¹

⁸ The other woman was his first cousin Helene, who had been his childhood sweetheart. They had corresponded for years and reconnected in Vienna in 1946. Hayek spent the 1951 spring semester at the University of Arkansas to take advantage of the state's liberal divorce laws. For more details on Hayek's divorce see Alan Ebenstein, *Hayek's Journey: The Mind of Friedrich Hayek* (New York: Palgrave Macmillan, 2003), p. 123.

⁹ F. A. Hayek, *The Denationalisation of Money*, 2nd ed. (London: Institute of Economic Affairs, 1978); Hayek, *The Fatal Conceit: The Errors of Socialism*, ed. W. W. Bartley III (Chicago: University of Chicago Press, 1988).

¹⁰ John Maynard Keynes, "The End of Laissez-Faire" [1926], in Keynes, *Essays in Persuasion* (New York: W. W. Norton, 1963), p. 312.

¹¹ *Ibid.* pp. 318–19.

In *The General Theory* Keynes would emphasize his view that market forces could not be counted on to deliver a great enough volume of investment in the aggregate. An enlightened government should take control.

KEYNES VERSUS HAYEK ON THE ROLE OF GOVERNMENT

Keynes was a leading advocate of the view that government should take greater control over the economy. Hayek was a leading advocate of the view that government should interfere less with market forces. They serve as representatives of the opposing sides here because of their wide influence, not because either took the most polar position available. Keynes did not want to abolish markets the way communist thinkers would. Keynes explicitly rejected Russian communism for three reasons: (1) It “destroys the liberty and security of daily life”; (2) its Marxian economic theory is “not only scientifically erroneous but without interest or application for the modern world” and its Marxist literature more generally is “turgid rubbish”; and (3) it “exalts the boorish proletariat above the bourgeois and the intelligent-sia” – in other words, sneers at people like Keynes and his circle.¹² Hayek did not want to abolish government the way anarcho-capitalist thinkers would. (Yes, there really are serious proponents of a stateless market economy.)¹³

For most of the twentieth century, Keynes's view that government should take on a greater role in the economy prevailed among opinion-makers. And the role of government grew. While Keynes was not an advocate of *complete* state planning, he did endorse *greater* planning. In a letter to Hayek, responding to Hayek's critique of state planning in *The Road to Serfdom*, Keynes wrote:

I should say that what we want is not no planning, or even less planning, indeed I should say that what we almost certainly want is more.¹⁴

In *The General Theory of Employment, Interest, and Money* (1936) Keynes called for “a somewhat comprehensive socialization of investment” which

¹² John Maynard Keynes, “A Short View of Russia” in Keynes, *Essays in Persuasion*, pp. 299–300.

¹³ Two important contributors are Murray N. Rothbard, *For a New Liberty*, rev. ed. (New York: Collier, 1978), and David D. Friedman, *The Machinery of Freedom* (Chicago: Open Court, 1989). A well-known work in political philosophy, Robert Nozick's *Anarchy, State, and Utopia* (New York: Basic Books, 1974), devotes its first third to wrestling with anarcho-capitalism. Proponents and critics are both represented in Edward P. Stringham, ed., *Anarchy and the Law* (Oakland, CA: Independent Institute, 2007).

¹⁴ Donald Moggridge, ed., *John Maynard Keynes, The Collected Writings*, vol. 27: *Activities, 1940–1946* (Cambridge: Cambridge University Press, 1973), p. 387.

he believed would provide “the only means of securing an approximation to full employment.” His focus there was on economy-wide aggregates rather than on details of resource allocation. He emphasized that his proposal for “socialization of investment” did not imply full State Socialism in the sense of outright government ownership of factories:

It is not the ownership of the instruments of production which it is important for the State to assume. If the State is able to determine the aggregate amount of resources devoted to augmenting the instruments and the basic rate of reward to those who own them, it will have accomplished all that is necessary.¹⁵

The government need not own the factories if it can otherwise bring about the proper volume of total investment spending. Keynes prescribed a greater volume of investment than he thought the market would deliver. A greater volume of investment would reduce the rate of return on investment. He envisioned the “euthanasia of the rentier” (the person who lives on interest income) and “the euthanasia of the cumulative oppressive power of the capitalist,” meaning a policy that would drive the rate of return so low – perhaps even to zero – that no wealth-owner could live solely on the returns from his investments.¹⁶

Keynes also suggested a greater role for government in labor markets, questioning in a 1925 essay “whether wages should be fixed by the forces of supply and demand in accordance with the orthodox theories of laissez-faire, or whether we should begin to limit the freedom of those forces by reference to what is ‘fair’ and ‘reasonable’ having regard to all the circumstances.”¹⁷

POLITICAL ECONOMY IN AMERICA’S PROGRESSIVE ERA

Economic ideas supporting the expansion of government’s role in the economy certainly did not begin with Keynes. Indeed they did not even begin in the twentieth century. In the late nineteenth century the United States, for example, entered a period of ideological change toward more active government, a period now called the Progressive Era. Numerous

¹⁵ John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (London: Macmillan, 1936), pp. 377–8.

¹⁶ Allan H. Meltzer, *Keynes’s Monetary Theory: A Different Interpretation* (New York: Cambridge University Press, 1988), emphasizes that “Keynes favored state direction of investment from the mid-1920s” (p. 5) and views *The General Theory* as Keynes’s attempt to provide a theoretical underpinning for that long-held belief.

¹⁷ John Maynard Keynes, “Am I a Liberal?” [1925], in Keynes, *Essays in Persuasion*, p. 333.

economists played important roles in the ideological and political movement, developing arguments and promoting legislation to increase the role of the federal government in the economy, from the Sherman Antitrust Act (1890) to the Pure Food and Drugs Act (1906) to the Federal Reserve Act (1913). As Thomas C. Leonard has put it, “In the three to four decades after 1890, American economics became an expert policy science and academic economists played a leading role in bringing about a vastly more expansive state role in the American economy.”¹⁸

In the late 1870s and 1880s young American economists were returning from graduate training in Germany with ideas and approaches that they developed into a school of thought that came to be known as institutionalist economics. In 1885 the thirty-one-year-old Richard T. Ely of Johns Hopkins University led a group of these economists in founding the American Economic Association (AEA). The AEA quickly became (and remains) the leading professional organization of economists, but among its original missions was to organize economists opposed to laissez-faire ideas. The AEA’s initial Statement of Principles affirmed “the state as an agency whose positive assistance is one of the indispensable conditions of human progress.”¹⁹ Ely and economist John R. Commons went on to influence labor policy reforms during the Progressive Era as leaders of the American Association for Labor Legislation (AALL). The AALL was founded in 1906 with Ely as its first president and Commons soon becoming its secretary.²⁰

Ely and his compatriots saw themselves as a “new school” of dissenters from classical or neoclassical economics and from the doctrine of laissez-faire. Ely wrote in 1886 of “the controversy between the economists of the old school,” meaning the classical and neoclassical economists and defenders of laissez-faire, and the economists of “the new school in America,” meaning the institutionalists and Progressives like himself. He described the “new school” thinkers as scientific truth-seekers whose historical investigations

¹⁸ Thomas C. Leonard, “Eugenics and Economics in the Progressive Era,” *Journal of Economic Perspectives* 19 (Autumn 2005), p. 207.

¹⁹ On Ely’s life and influence see Benjamin G. Rader, *The Academic Mind and Reform: The Influence of Richard T. Ely in American Life* (Lexington: University Press of Kentucky, 1966). The AEA Statement of Principles is quoted by Bradley W. Bateman and Ethan B. Kapstein, “Between God and the Market: The Religious Roots of the American Economic Association,” *Journal of Economic Perspectives* 13 (Fall 1999), p. 253. Institutionalism and its German roots will be discussed in [Chapter 4](#).

²⁰ David A. Moss, *Socializing Security: Progressive Era Economists and the Origins of American Social Policy* (Cambridge, MA: Harvard University Press, 1996); John Dennis Chasse, “The American Association for Labor Legislation: An Episode in Institutional Policy Analysis,” *Journal of Economic Issues* 25 (September 1991), pp. 799–828.

had uncovered the benefits of labor unionization and strikes, had found in socialism “important and fruitful truths which have been unfortunately overlooked,” and had “overthrow[n] many cherished dogmas” of orthodox finance. As a result there were now “political economists teaching different doctrines from the theories previously received by the more influential elements in society.” Ely elaborated the same theme at greater length in an 1884 monograph, where he explicitly tied the new school in America to the teachings of German historical economists.²¹

In Great Britain of the same decade, the up-to-date economist’s case against laissez-faire was mostly based on finding theoretical exceptions to the rule rather than on historical investigation. Henry Sidgwick observed in his *Principles of Political Economy* (2nd ed., 1887) that although most economic commentators of his day still considered the case for laissez-faire in the area of international trade, that is, the case for unilateral free trade, “to be as evident and cogent as a mathematical demonstration,” that area was an exception, and “only a few fanatics would now use similar language in discussing any other particular application of the general doctrine of *laissez faire*.” The old view “that the self-interest of individuals would always direct them to the industrial activities most conducive to the wealth and well-being of the community of which they are members,” together with the kindred belief in “the harmony of the interest of each industrial class with the interest of the whole community,” Sidgwick declared, “has lost its hold on the mind of our age.” In its place “the need of governmental interference to promote production is admitted by economists generally” in at least several cases.²²

Sidgwick was a leading utilitarian. The doctrine of utilitarianism – the idea that we should aim to maximize aggregate net happiness – had a growing influence following the publication of Jeremy Bentham’s *Introduction to Principles of Morals and Legislation* (1789). Bentham’s ideas were vigorously promoted by James Mill in the early nineteenth century. Although Bentham and Mill themselves judged free markets the best means to promote maximum happiness, utilitarianism effectively told economists to deny preemptive status to any policy rule like laissez-faire. Instead they should pragmatically evaluate, for each proposed government activity,

²¹ Richard T. Ely, “Introduction” to Henry C. Adams et al., *Science Economic Discussion* (New York: Science Co., 1886), pp. v–x; “The Past and Present of Political Economy,” *Johns Hopkins University Studies in Historical and Political Science* Second Series III (March 1884).

²² Henry Sidgwick, *Principles of Political Economy*, 2nd ed. (London: Macmillan, 1887), pp. 487–8. [Chapter 14](#) discusses Sidgwick’s case for a theoretical exception to free trade.

whether its social benefits would exceed its social costs. Applying the utilitarian approach, the classical economists of the later nineteenth century, like John Stuart Mill and Henry Sidgwick, came to regard an increasing number of activities as exceptions to laissez-faire where government likely could promote an increase in net social benefits.²³

KEYNES WAS NOT THE FIRST TO TURN AWAY FROM LAISSEZ-FAIRE IDEAS

That many economists before 1930 developed anti-laissez-faire arguments and supported Progressive causes may surprise those who think that professional economists have almost always favored leaving the market free, or at least did so before Keynes. Fortunately or unfortunately, the devotion of economists to the doctrine of laissez-faire has been grossly exaggerated, both for economists before the Great Depression and for economists today.²⁴ Nobel laureate (2009) and *New York Times* columnist Paul Krugman provides an example of the first exaggeration:

Until John Maynard Keynes published *The General Theory of Employment, Interest, and Money* in 1936, economics – at least in the English-speaking world – was completely dominated by free-market orthodoxy. Heresies would occasionally pop up, but they were always suppressed. Classical economics, wrote Keynes in 1936, “conquered England as completely as the Holy Inquisition conquered Spain.” And classical economics said that the answer to almost all problems was to let the forces of supply and demand do their job.²⁵

Keynes himself had exaggerated the situation even before 1936. In his essay “The End of Laissez-Faire” (1926) he stated that the laissez-faire doctrine “for

²³ On the role of Benthamite utilitarianism in the decline of laissez-faire ideas among British economists after Adam Smith, see Ellen Frankel Paul, *Moral Revolution and Economic Science: The Demise of Laissez-Faire in Nineteenth-Century British Political Economy* (Westport, CT: Greenwood Press, 1979). We give this story more attention in [Chapter 7](#).

²⁴ For survey evidence on the small-minority status of the laissez-faire viewpoint among economists today, and a discussion of why the viewpoint’s prevalence is often exaggerated, see Daniel B. Klein and Charlotta Stern, “Is There a Free-market Economist in the House? The Policy Views of American Economic Association Members,” *American Journal of Economics and Sociology* 66 (April 2007), pp. 309–34.

²⁵ Paul Krugman, “Who Was Milton Friedman?” *New York Review of Books* 54 (15 February 2007), <http://www.nybooks.com/articles/19857>. It is difficult to square this depiction of Keynes as a pioneering critic of free-market economics with Krugman’s more recent statement “the right has always seen Keynesian economics as a leftist doctrine, when it’s actually nothing of the sort.” Krugman, “Bombs, Bridges, and Jobs,” *New York Times* (30 October 2011),

fifty years past, has been the view of all leading economists,” even though he granted that Alfred Marshall – whom he might have noted was *the* leading economist of the period – had drawn attention to cases in which “private interest and social interest are *not* harmonious.” In an obituary notice for Marshall, published in the same year, Keynes gave a more accurate picture. He noted Marshall’s “strong sympathy with socialistic ideas” and added:

Marshall’s proof that laissez faire breaks down in certain conditions, theoretically and not merely practically, regarded as a principle of maximum social advantage, was of great philosophical importance. But Marshall does not carry this particular argument very far, and the further exploration of that field has been left to Marshall’s favourite pupil and successor, Professor Pigou.²⁶

Government’s role greatly expanded in the UK and U.S. economies before 1936, especially during the Progressive Era, the First World War, and the early New Deal (1933–5) in the United States. The Keynes-Krugman thesis would imply that these expansions happened despite the united opposition of leading economists. In fact a large number of prominent English-speaking economists promoted “heresies” from free-market ideas during the five or six decades before 1936. They were not relegated to the fringes of the economics profession, and their ideas were not “always suppressed.” (To be sure, the profession has always marginalized heretical amateurs, but more for their amateur status than for their policy views.) Ely, Commons, Sidgwick, Marshall, and Pigou were not marginalized or suppressed. To this list we may add the leading American economic theorist, Irving Fisher, whose policy views are sketched in the following section, and Fred M. Taylor, whose 1928 presidential address to the American Economic Association, was a proposal for “The Guidance of Production in a Socialist State.”²⁷

ALFRED MARSHALL AND IRVING FISHER ON LAISSEZ-FAIRE

Alfred Marshall stated his position clearly in an address to British economists in 1907. He noted that for John Stuart Mill (1806–73), the preeminent British economist of the third quarter of the nineteenth century, “it seems that each succeeding decade had enlarged the scope of those interventions of Government for the promotion of general well-being which he thought

²⁶ Keynes, “End of Laissez Faire,” [1926]; Keynes, “Alfred Marshall, 1842–1924,” *Economic Journal* 34 (1924), p. 352. [Chapter 13](#) discusses the Marshall-Pigou market-failure arguments.

²⁷ Fred M. Taylor, “The Guidance of Production in a Socialist State,” *American Economic Review* 19 (March 1929), pp. 1–8.

likely to work well.”²⁸ Marshall believed that the majority of his contemporary economists favored an expansion of state intervention, though not full-blown socialism: “Economists generally desire increased intensity of State activities for social amelioration,” although “they are opposed to that vast extension of State activities which is desired by Collectivists.”²⁹

Marshall’s own view was that various influences, among which he listed the increasing professionalism of government bureaus and the socialist ideas of the “noble if weird” Robert Owen, “have co-operated with technical progress to enlarge the scope for the beneficial intervention of Government since Mill’s death even more than during his long life.” Marshall warned that supplanting private with government ownership of most industries would be going too far, but he endorsed municipal ownership of public utilities as well as city land use planning.³⁰ He opposed a complete leveling of wealth, but he made a utilitarian case for moderate redistribution of income. To Marshall “a vast increase of happiness and elevation of life might be attained if those forms of expenditure which serve no high purpose could be curtailed, and the resources thus set free could be applied for the welfare of the less prosperous members of the working classes.”³¹

Marshall’s student and the successor to his chair at Cambridge, Arthur C. Pigou, argued in his influential books *Wealth and Welfare* (1912) and *The Economics of Welfare* (1920) that laissez-faire would not maximize net social benefits in the many cases where one party’s economic activity generated important spillovers or “external effects” on other parties. Pigou seconded Marshall’s case for income redistribution, and favored nationalization of certain industries (armaments, coal-mining, and possibly railroads).

In the United States, the economic historian Hugh Rockoff has commented, “there is no justification at all for viewing the economists in the 1920s as doctrinaire defenders of laissez-faire. That view is easily rejected by even a cursory study of the history of economic thought prior to the New Deal.” Leading economists and other intellectuals of the Progressive era had already made an “ideological shift – from widespread skepticism about the ability of the central government to improve the functioning of the economy

²⁸ J. S. Mill’s preeminence rested on his *Principles of Political Economy*, which first appeared in 1848 and became the leading economics textbook, going through seven editions in his lifetime and further editions posthumously. Marshall’s remark may refer to how Mill’s succeeding editions contemplated larger roles for government and were less critical of socialism. We discuss Bentham and J. S. Mill in greater detail in Chapter 7.

²⁹ Alfred Marshall, “The Social Possibilities of Economic Chivalry,” *Economic Journal* 17 (March 1907), pp. 17–19.

³⁰ *Ibid.*, pp. 22–5.

³¹ *Ibid.*, p. 12.

to widespread faith in the competence of government.” Rockoff finds that “the New Deal was just what the doctors (of economics) ordered”:

As it turns out, virtually all the reforms adopted in the 1930s – minimum wages, social security, unemployment compensation, the Civilian Conservation Corps, and so on – had been championed by economists.

In surveying what economists published during the era Rockoff finds that “*the overwhelming majority of the articles on New Deal-type reforms published in major economic journals between World War I and 1929 were favorable.*”³² Several of the articles Rockoff cites were written by institutionalist economists, including Ely, Commons, and John Maurice Clark.

In the same year (1907) that Marshall spoke to his fellow economists about the profession’s turn away from *laissez-faire* toward a larger role for government, the leading American economic theorist of the early twentieth century delivered the same message. Irving Fisher of Yale University, in an essay entitled “Why Has the Doctrine of Laissez Faire Been Abandoned?” noted with satisfaction “the change from the extreme *laissez faire* doctrines of the classical economists to the modern doctrines of governmental regulation and social control” over the previous decades.

Fisher attributed the change to greater recognition of two flaws in the *laissez-faire* doctrine. First, anticipating Keynes’s view that individuals acting separately are often “too ignorant or too weak” to do what is good for them, Fisher advised that the social benefit of guidance by experts should trump the principle of letting individuals make their own decisions: “We can not let any dogma of *laissez faire* prevent us from checking suicidal ignorance.” For example, society should restrict the sale and consumption of alcohol.³³ Many of the Progressive economists favored alcohol and drug prohibition, and even eugenics (immigration barriers against and sterilization of “inferior races” to prevent “race suicide”), as scientific means to social betterment.³⁴

³² Hugh Rockoff, “By Way of Analogy: The Expansion of the Federal Government in the 1930s,” in Michael D. Bordo, Claudia Goldin, and Eugene N. White, eds., *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century* (Chicago: University of Chicago Press, 1998), pp. 133, 125, 126, 134 (emphasis in the original).

³³ Irving Fisher, “Why Has the Doctrine of Laissez Faire Been Abandoned?” *Science* (New Series) 25 (4 January 1907), pp. 18, 20.

³⁴ Thomas C. Leonard quotes racist and eugenicist statements by numerous progressive economists, including Irving Fisher, John R. Commons, Simon Patten, and Francis A. Walker, and by the Fabian socialists Sidney and Beatrice Webb. See Leonard, “Eugenics and

The “second fallacy in *laissez faire*” was the one also cited by Marshall and later Pigou, the failure to grapple with external effects: “*laissez faire* doctrinaires have overlooked [those actions] in which the injury to society outweighs the benefit to the individual.” Among other examples Fisher cited spitting on the sidewalk (which could spread disease), cutthroat competition in the railroad industry, the pointless resource costs of a gold standard, and “social racing,” that is, wasteful expenditures to keep up with the Joneses. He did not specify how government might remedy social racing. These cases illustrated “the suicidal effects of blindly following individual self-interest” without regard to spillover effects.

Fisher found it “astonishing” how far some earlier writers had pushed free-market principles, citing “Herbert Spencer’s advocacy of freedom of private coinage” and the early anarcho-capitalist Gustave di Molinari’s argument that competing private police forces would provide better service than government police.³⁵ Like Marshall, Fisher saw a well-considered expansion of government’s economic role as the prudent middle course: “We are doubtless to-day in danger of too much socialistic experimentation; but nothing can be gained and much may be lost by ignoring or condoning the opposite evils of individualism.”³⁶ Fisher argued later in his career for a progressive income tax on the grounds that economic science shows a dollar of additional income to matter less to an individual with higher income than to an individual with lower income.³⁷

Economics,” pp. 207–24. See also Leonard, “American Economic Reform in the Progressive Era: Its Foundational Beliefs and Their Relation to Eugenics,” *History of Political Economy* 41 (Spring 2009), pp. 109–41. Dennis Sewell adds John Maynard Keynes and the Fabian William Beveridge to the list of eugenicists: Sewell, “How Eugenics Poisoned the Welfare State,” *Spectator.co.uk*, 25 November 2009, <http://www.spectator.co.uk/essays/all/5571423/how-eugenics-poisoned-the-welfare-state.shtml>.

³⁵ Ibid., p. 22. Fisher may have been unaware that there had been twenty-some reputable private gold and silver mints in the United States before they were outlawed during the Civil War. Notwithstanding his skepticism about private policing, private security guards presently outnumber government police officers in the United States.

³⁶ Ibid., p. 27.

³⁷ Irving Fisher, “A Statistical Method for Measuring ‘Marginal Utility’ and Testing the Justice of a Progressive Income Tax,” in *Economic Essays Contributed in Honor of John Bates Clark* (New York: Macmillan, 1927). Other economists (such as Oskar Lange, see [Chapter 2](#)) would use the same assumption of declining increments to happiness, which they identified with the “marginal utility” of economic theory, as an argument for redistribution of wealth to maximize total “social utility.” Lionel Robbins, *The Nature and Significance of Economic Science* (London: Macmillan, 1932), argued to the contrary that economic theory says nothing about the intensity of one person’s happiness compared to another’s. The “marginal utility” of economic theory is not about happiness and cannot be added or compared across persons.

THE GLOBAL ECONOMY BEFORE 1914

Keynes as a young man, and Hayek as a boy, lived through a remarkable period of economic growth that accompanied the relatively market-friendly policies in the decades before 1914. The telegraph, wireless, and telephone had brought the wonder of instantaneous communication among the world's cities.³⁸ Ever-faster ships and trains, and the introduction of the automobile and truck, accelerated the pace of travel and the reach of commerce. Several authors have called it "the first age of globalization."

In his 1920 book *The Economic Consequences of the Peace*, written when he was still something of a classical liberal, Keynes eloquently reminisced about the era that the Great War had abolished:

What an extraordinary episode in the economic progress of man that age was which came to an end in August, 1914! ... The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages. ... He could secure forthwith, if he wished it, cheap and comfortable means of transit to any country or climate without passport or other formality, ... and could then proceed abroad to foreign quarters ... bearing coined wealth upon his person, and would consider himself greatly aggrieved and much surprised at the least interference. ... The projects and politics of militarism and imperialism, of racial and cultural rivalries, of monopolies, restrictions, and exclusion, which were to play the serpent to this paradise, were little more than the amusements of his daily newspaper, and appeared to exercise almost no influence at all on the ordinary course of social and economic life, the internationalization of which was nearly complete in practice.³⁹

Hayek later commented wistfully on how the war changed all that: "We did not realize how fragile our civilization was."⁴⁰

³⁸ For an entertaining account of the impact of the telegraph, see Tom Standage, *The Victorian Internet* (New York: Berkley, 1999). For a fascinating account of Marconi's development of the wireless, mixed with a real-life murder mystery, see Erik Larson, *Thunderstruck* (New York: Crown, 2006).

³⁹ John Maynard Keynes, *The Economic Consequences of the Peace* (New York: Harcourt, Brace, and Howe, 1920), pp. 10–12.

⁴⁰ As quoted in *The Commanding Heights Episode One: The Battle of Ideas*, video transcript, http://www.pbs.org/wgbh/commandingheights/shared/minitext/tr_show01.html.

THE FEDERAL RESERVE ACT AND THE FIRST WORLD WAR

The course of economic progress before 1914 was not uninterrupted. In the United States, the Panic of 1907 shook the monetary and banking system. Congress created a National Monetary Commission to study the question of how to bring about greater financial stability. A small handful of economists and bankers argued for deregulatory reforms. They traced the weak condition of the U.S. banking system and the problematic “inelasticity” of the currency to the state governments’ restrictions against banks having multiple branches and the federal government’s restrictions on banknote issue.⁴¹ The majority of economists and bankers who addressed the matter, however, favored the creation of a central bank along the lines of the Bank of England or the German Reichsbank.⁴² In the spirit of Progressivism, the scope of federal authority over money and banking was expanded by the Federal Reserve Act of 1913. Later chapters (3, 5, 11, and 12) will discuss the clash of ideas among later economists on the extent to which central banks have proven helpful or harmful in practice.

The United States’ federal government under President Woodrow Wilson dramatically enlarged its role in the economy during 1917–18 to mobilize and commandeer resources for American involvement in the First World War. The experiment with command-and-control methods would be drawn upon by Franklin Roosevelt and his advisers during the Great Depression as a precedent for New Deal programs. Immediately after the war the federal government shrank, though not all the way back to its old size and scope, and market mechanisms were largely restored.⁴³ Wilson’s successor, Warren G. Harding, called this restoration a “return to normalcy.” The British government under Prime Minister David Lloyd George undertook a similar

⁴¹ Among the many volumes published by the commission, the regulatory-weakening hypothesis and deregulatory remedy were advanced most clearly by Alexander Dana Noyes, *History of National-Bank Currency* (Washington DC: Government Printing Office, 1910). On the analysis behind and lack of political traction for the deregulatory view see George Selgin and Lawrence H. White, “Monetary Reform and the Redemption of National Bank Notes, 1863–1913,” *Business History Review* 68 (Summer 1994), pp. 205–43. For a survey of late-nineteenth-century American advocates of laissez-faire banking see Selgin and White, “Laissez-Faire Monetary Theorists in Late Nineteenth Century America,” *Southern Economic Journal* 56 (January 1990), pp. 774–87.

⁴² For an overview of the debates in several countries concerning central banking versus free banking, see Vera Smith, *The Rationale of Central Banking* (Indianapolis: Liberty Press, 1990).

⁴³ See Robert Higgs, *Crisis and Leviathan* (Oxford: Oxford University Press, 1987), ch. 7.

“war-time revolution” of extensive state control over the economy, largely winding up the new ministries after the war.⁴⁴

THE RUSSIAN REVOLUTIONS OF 1917

In Russia, a longer-lasting policy experiment in government control of the economy began in 1917. Strikes and military desertions led Tsar Nicholas II to abdicate in February. The Bolsheviks led by Vladimir Lenin overthrew the relatively liberal provisional government in October and now faced the challenge of building a rigorously socialist economy inspired by the ideas of Karl Marx. Lenin faced a major architectural problem: Marx had never provided a blueprint. To provide a blueprint for an ideal socialist regime was “utopian” socialism. Marx had ridiculed the utopian socialists for drawing “fantastic pictures of future society.” He and collaborator Friedrich Engels insisted on a “scientific” socialism, one that criticized capitalism and predicted its inevitable demise without ever spelling out how production would be organized under the socialism to come.⁴⁵

Robert Owen was the best known of the “utopian” socialists. Owen and his followers bought a rural Indiana community in 1824 from a religious sect, renamed it New Harmony, and ran it as a voluntary experiment in collective farming. The experiment did not go well. Joshua Muravchik has commented that “within a year after taking it over, Owen and his thousand followers had turned this little Switzerland into an Albania.”⁴⁶ Other non-religious communitarian experiments of the nineteenth century similarly failed.⁴⁷ By dismissing Owen and others as “utopians,” Muravchik observes, Marx and Engels

wiped this record of failure away with one of the great intellectual conjuring tricks of all time.... Owen and the other communitarians actually created

⁴⁴ Richard Toye, *The Labour Party and the Planned Economy, 1931–1951* (Woodbridge, UK: Boydell Press, 2003), pp. 20–1.

⁴⁵ See David Prychitko, “Marxism and Market Processes,” in Peter J. Boettke, ed., *The Elgar Companion to Austrian Economics* (Cheltenham: Edward Elgar, 1994), p. 516.

⁴⁶ Joshua Muravchik, contribution to the symposium “Socialism: What Happened? What Now?” (1 May 2000), transcript available at <http://www.socialdemocrats.org/MayDayTranscript.html>.

⁴⁷ On the variety of experiments see John F. C. Harrison, *Quest for the New Moral World: Robert Owen and the Owenites in Britain and America* (New York: Scribner, 1969), and Donald E. Pitzer, ed., *America's Communal Utopias* (Chapel Hill: University of North Carolina Press, 1997). For England the standard reference is W. H. G. Armytage, *Heavens Below: Utopian Experiments in England 1560–1960* (London: Routledge and Kegan Paul, 1961).

experiments to test their ideas. Experimentation is the very essence of science. They were the real scientific socialists. Marx and Engels dismissed all experimental evidence, replaced it with an idea that was sheer prophecy, and claimed thereby to have progressed from utopia to science.⁴⁸

Marx and Engels wrote in the *Communist Manifesto* (1848) that “The distinguishing feature of Communism is ... the abolition of bourgeois property. ... In this sense, the theory of the Communists may be summed up in the single sentence: Abolition of private property.”⁴⁹ There was no follow-on sentence specifying what was to take the place of private property or the markets on which private property is exchanged. Marx rejected the idea that private property in the means of production is the most effective way to deal with the unavoidable fact of scarcity, the inadequacy of available means for satisfying all human desires.

Scarcity implies that some individual or group will need to have the say-so over how any unit of resources – worker, machine, acre of land – will be used. Private property gives say-so to private owners. Each individual decides for himself what job to take. The individual or the voluntary association of individuals that has produced or purchased a machine, or a plot of land, decides how to use it. Aside from moral arguments based on individual rights to liberty and property, such an arrangement can be defended on the practical grounds that these are the persons best positioned to use the resources knowledgably. Private ownership avoids the costs of consulting and securing agreement from thousands of others (except insofar as ownership has been voluntarily pooled with thousands of partners or fellow shareholders). It provides hard-to-beat incentives for creating new resources and for carefully husbanding existing resources. Marx dismissed such a defense of private property as the “selfish misconception that induces you [the ‘bourgeois’] to transform into eternal laws of nature and of reason the social forms stringing from your present mode of production and form of property – historical relations that rise and disappear in the progress of production.”⁵⁰ That is, the supposedly essential role of private property in producing and allocating scarce resources would disappear once capitalism yielded to socialism and finally to communism.

⁴⁸ Muravchik, “Socialism.” See also Muravchik, *Heaven on Earth: The Rise and Fall of Socialism* (San Francisco: Encounter Books, 2002), p. 342.

⁴⁹ Karl Marx and Friedrich Engels, “The Communist Manifesto,” in Nicholas Capaldi and Gordon Lloyd, eds., *The Two Narratives of Political Economy* (Hoboken, NJ: John Wiley, 2011), p. 397.

⁵⁰ *Ibid.*, p. 399.

The Communist Manifesto offered the following prophecy about production under socialism:

When, in the course of development, class distinctions have disappeared, and all production has been concentrated in the hands of a vast association of the whole nation ... the proletariat ... sweeps away by force the old conditions of production ...⁵¹

So production would be nationalized. In *Capital* Marx added that production is to be “consciously regulated” by associated men “in accordance with a settled plan.”⁵² So production would be centrally planned. And how, according to what principles, would the nation centrally plan the new conditions of production? Marx and Engels never really said.

KARL MARX

Karl Marx (1818–83) was born to a middle-class German family, his father a lawyer. He studied law at the German Universities of Bonn and Berlin, but turned to philosophy at the University of Jena. He became a journalist in Köln (Cologne) in 1842, and then moved to Paris a year later. In Paris he met Friedrich Engels who became his patron and collaborator. Together they penned *The Communist Manifesto* in 1848. Marx moved to London in 1849, where he read and wrote, earning some income as a correspondent for the *New York Tribune*. Most importantly Marx studied the works of David Ricardo and other classical economists. From the classical economists Marx took two key ideas: the labor theory of value (discussed in more detail in the next chapter), and the analysis of income shares along class lines (total national income as a pie divided among workers, capitalists, and landowners). From these he derived an exploitation theory of profit. The capitalists’ income came not from any productive contribution but from “surplus value” derived by paying workers less than the whole value of what the workers produced. Marx developed his theories in the three-volume work *Capital* (1867, 1885, 1894), the last two volumes published posthumously under Engels’s editorship, and in the doctrine-historical study *Theories of Surplus Value* (written 1861–3).

⁵¹ Ibid., p. 403.

⁵² Karl Marx, *Capital* (New York: Modern Library, 1906), p. 92. Quoted by Peter Boettke, “The Political Economy of Utopia,” in Boettke, *Calculation and Coordination* (New York: Routledge, 2001), p. 109. Boettke’s essay traces the continuity between Marx’s intellectual project and Lenin’s political project. See also Boettke, *The Political Economy of Soviet Socialism: The Formative Years, 1918–1928* (Boston: Kluwer Academic, 1990), pp. 66–9.

Vladimir Lenin, the Bolshevik leader, was a thoroughgoing Marxist. He declared:

It is to the great historical merit of Marx and Engels that they proved by scientific analysis the inevitability of capitalism's collapse and its transition to communism, under which there will be no more exploitation of man by man.⁵³

An old joke offers a variant of Lenin's description of communism: "Under capitalism man exploits man. Under communism things will be exactly the reverse!"

To say that communism is inevitable does not explain how a communist regime will organize production. Now that they were in charge, what were the Bolsheviks to do?

⁵³ Vladimir I. Lenin, "Speech at the Unveiling of a Memorial to Marx & Engels" (7 November 1918), in *Collected Works*, vol. 28 (Moscow: Progress Press, 1972), p. 165.

The Bolshevik Revolution and the Socialist Calculation Debate

Vladimir Lenin sent warm greetings in April 1919 to the socialist revolutionaries who had just seized power in Munich and declared a Bavarian Soviet Republic. Drawing on his experience eighteen months earlier leading the Bolshevik Revolution that gave Russia a Soviet Socialist government, he asked them about a checklist of concrete measures they might take, urging their “most urgent and most extensive implementation”:

[H]ave councils of workers and servants been formed in the different sections of the city; have the workers been armed; have the bourgeoisie been disarmed; has use been made of the stocks of clothing and other items for immediate and extensive aid to the workers, and especially to the farm labourers and small peasants; have the capitalist factories and wealth in Munich and the capitalist farms in its environs been confiscated; have mortgage and rent payments by small peasants been cancelled; have the wages of farm labourers and unskilled workers been doubled or trebled; have all paper stocks and all printing-presses been confiscated so as to enable popular leaflets and newspapers to be printed for the masses; has the six-hour working day with two or three-hour instruction in state administration been introduced; have the bourgeoisie in Munich been made to give up surplus housing so that workers may be immediately moved into comfortable flats; have you taken over all the banks; have you taken hostages from the ranks of the bourgeoisie; have you introduced higher rations for the workers than for the bourgeoisie; have all the workers been mobilised for defence and for ideological propaganda in the neighbouring villages?¹

The list concisely summarizes Lenin’s immediate agenda for consolidating power by winning over the workers. The absence of any suggestions for longer-range economic strategy hints at the problem Lenin himself faced in

¹ V. I. Lenin, “Message of Greetings to the Bavarian Soviet Republic,” in *Collected Works*, 4th English ed., vol. 29 (Moscow: Progress, 1972), pp. 325–6. Available online at <http://www.marxists.org/archive/lenin/works/1919/apr/27.htm>.

Moscow: because there were no concrete guidelines from Marx and Engels, economic policy had to be improvised.

THE BOLSHEVIKS MAKE ECONOMIC POLICY

Lenin imagined that in the communism of the ultimate future, the state would wither away. In the socialist transition between capitalism and communism, however, far-reaching state control of the economy would be necessary to advance the interests of the workers. As Lenin's contemporary the Russian agricultural economist Boris Brutzkus noted, the Bolsheviks found in Marx's critique of capitalism a rejection of the capitalist system of regulating production through market prices and the suggestion of replacing it with "a unitary state plan."²

After taking power, the Bolsheviks quickly established a central planning agency known as the Supreme Economic Council. The Council nationalized the banking system in December 1917, putting all banks under the control of the State Bank left over from the tsarist regime. The Soviet government nationalized large industrial firms and put worker committees in control of the factories. In the spring of 1918 foreign trade became a state monopoly. By fall, the government had nationalized even small businesses. It completely outlawed private trade, private hiring, and private leasing of land. There was even an attempt to do away with money. An August 1918 decree, as described by Peter Boettke in his economic history of the period, "declared that all transactions had to be carried out by accounting operations without using money."³ All goods were to be distributed by government rationing. In agriculture, the Soviet government confiscated all food grown by peasant farmers (beyond what the farmers were allowed for their own consumption) for distribution in the cities. It was, as the economist Jack Hirshleifer put it, "the most extreme effort in modern times to do away with the system of private property and voluntary exchange."⁴

The results were disastrous. Without a price system to coordinate economic plans, in Leon Trotsky's apt metaphor, "Each factory resembled a telephone whose wires had been cut."⁵ By 1920 Russia's industrial output

² As quoted by Peter J. Boettke, *The Political Economy of Soviet Socialism: The Formative Years, 1918–1928* (Boston: Kluwer Academic, 1990), p. 31.

³ Ibid., p. 65.

⁴ Jack Hirshleifer, *Economic Behavior in Adversity* (Chicago: University of Chicago Press, 1987), p. 15.

⁵ As quoted by Paul Gregory, *Before Command: An Economic History of Russia from Emancipation to the First Five-year Plan* (Princeton, NJ: Princeton University Press, 1994), p. 99.

had plummeted to less than one-fifth of its 1916 level. In the countryside, peasants rebelled against the crop confiscations. They began to grow less and to hide what they did grow. In the cities, shortages of food and other goods were so severe that many people fled to the countryside to avoid starvation. Famine and mass exodus halved the populations of Petrograd and Moscow in the two years following the Bolshevik takeover. Workers began protest strikes. Hungry soldiers and sailors rebelled.⁶

In 1921, Lenin retreated from the policies that he now called “war communism” and characterized as mere emergency measures necessitated by the civil war of the Reds against counterrevolutionary White resistance. Lenin’s relabeling masked the fact that the policies had not been driven entirely by expediency or necessity. The Bolsheviks had been seriously trying to implement a marketless economy. The market-abolishing measures continued to multiply, eliminating the last pockets of private enterprise, even after the resistance had been defeated in 1920. The complete collapse of the economy followed the elimination of these pockets that had previously escaped control.

With starvation the alternative, Lenin’s “New Economic Policy” of 1921 readmitted market exchange, allowing peasants to sell their produce and substituting a lower percentage tax for the previous confiscations. Small businesses and services were denationalized, and private trading was once again allowed. With his government still in control of banking, large industry, and foreign trade, Lenin described the NEP as a strategic retreat to the “commanding heights of the economy.” The Russian economy improved. The NEP would later be abandoned in 1928 with Stalin’s attacks on private traders, the “Nepmen,”⁷ and his introduction of Five-Year Plans for industrialization. Two years later Stalin would collectivize agriculture.

VIENNA 1920

Marxist-Leninist ideas were not confined to Russia in the years following the First World War. They also captured minds and governments in central Europe. Bolsheviks held power in Budapest from March 1919 to August 1919, declaring the country a Hungarian Soviet Republic. As noted, communists seized power in Munich in April 1919 and proclaimed a Bavarian

⁶ For overviews of the period see Boettke, *The Political Economy of Soviet Socialism*, pp. 63–111, and Hirshliefer, *Economic Behavior in Adversity*, pp. 15–23.

⁷ On the NEP period see Alan M. Ball, *Russia’s Last Capitalists: The Nepmen, 1921–1929* (Berkeley: University of California Press, 1990).

Soviet Republic. It lasted for about a month before the German army intervened. Marxists dominated local government in “Red Vienna.” Among the new city-owned housing projects was the *Karl Marx Hof*. Vienna was impoverished not only by the War and by the dissolution of the Austro-Hungarian Empire, but also by its own price controls on food and fuel. In Austria as a whole, the Social Democrats finished first in the 1919 elections and formed a coalition government. Its Socialization Commission called for the nationalization of coal, iron, steel, and later other sectors of the economy. The head of the Commission, Otto Bauer, advocated “guild” socialism.⁸ The Viennese philosopher and economist Otto Neurath, who was involved in making economic policy for the Bavarian Soviet Republic in 1919, published a book in the same year proposing that the centralized allocation or “war socialism” of the First World War could serve as the first step toward a moneyless “natural” economy.⁹

Ludwig von Mises stepped forward as the leading critic of socialist ideas in Vienna. Provoked especially by Neurath’s argument, Mises in 1920 published a soon-to-be famous article on “Economic Calculation in the Socialist Commonwealth,” followed two years later by his book *Socialism* (1922).¹⁰ Mises’s book shook Hayek out of his early inclination toward socialist ideas. In a 1978 foreword to a reprint of Mises’s 1922 book, Hayek wrote that

when *Socialism* first appeared, its impact was profound. It gradually but fundamentally altered the outlook of many of the young idealists returning to their university studies after World War I. I know, for I was one of them. . . . We were determined to build a better world, and it was this desire to reconstruct society that led many of us to the study of economics. Socialism promised to fulfill our hopes for a more rational, more just world. And then came this book. Our hopes were dashed. *Socialism* told us that we had been looking for improvement in the wrong direction.¹¹

LUDWIG VON MISES

Ludwig von Mises (1881–1973) received his doctorate in 1906 from the University of Vienna, where he had attended Eugen von Böhm-Bawerk’s

⁸ Kari Polanyi-Levitt and Marguerite Mendell, “The Origins of Market Fetishism – Critique of Friedrich Hayek’s Economic Theory,” *Monthly Review* 41 (June 1989), pp. 11–32.

⁹ See Bruce Caldwell, *Hayek’s Challenge* (Chicago: University of Chicago Press, 2004), p. 116.

¹⁰ Ludwig von Mises, “Economic Calculation in the Socialist Commonwealth” [1920], trans. S. Adler, in F. A. Hayek, ed., *Collectivist Economic Planning* (London: Routledge, 1935), pp. 87–130; Mises, *Socialism: An Economic and Sociological Analysis* [1922], trans. J. Kahane [1936] (Indianapolis: Liberty Fund, 1981).

¹¹ F. A. Hayek, “Foreword,” in Mises, *Socialism*, p. xix.

seminar. He became the chief economist for the Austrian Chamber of Commerce in the following year. The first of his many noteworthy books was *The Theory of Money and Credit*, published in 1912. After serving in the First World War, Mises returned to the Chamber, where he was an official adviser to the Austrian government. He was also an unpaid external lecturer (*privatdozent*) at the University of Vienna. From 1920 to 1934 he ran a private seminar that was Vienna's leading discussion venue for advanced economics.¹² Hayek joined the Mises Circle in 1924, after taking a job in a temporary postwar government office headed by Mises. Mises and the other members of Circle developed the "Austrian" approach to economics that had been pioneered by Carl Menger and then advanced by Eugen Böhm-Bawerk and Friedrich Wieser at the University of Vienna.¹³ In economic policy, Mises argued strongly for free markets based on their beneficial practical results.

Mises founded the Austrian Institute for Business Cycle Research in 1927, giving Hayek the job of running it. Seven years later, endangered by his outspokenness and Jewish ancestry, Mises left the country ahead of Nazi Germany's takeover of Austria, and became a professor in Geneva, Switzerland. In 1940 at the age of 59, concerned about the Nazi threat to Geneva, he and his wife fled to New York (they had married in 1938, soon after his mother had died). He finished out his long career as a visiting professor at New York University from 1945 to 1969. His best known work, the wide-ranging treatise *Human Action*, was published in 1949.¹⁴

MISES'S CRITIQUE OF THE SOCIALIST ECONOMY

Mises issued a forceful challenge to socialist thinking in his 1920 article. The socialists, he said, had not addressed a basic problem imposed by

¹² On the basis of the importance of his books and articles, Mises was an obvious candidate for appointment to the chair in economics at the university when it became vacant in 1922. Hayek, in *Hayek on Hayek: An Autobiographical Dialogue*, ed. Stephen Kresge and Leif Wenar (Chicago: University of Chicago Press, 1994), p. 59, attributes Mises's nonappointment principally to his being an antisocialist when most faculty were socialists.

¹³ For more on Menger, see [Chapter 8](#).

¹⁴ For a brief overview of Mises's thought see David Hart, "Ludwig von Mises, Money, and the Fall and Rise of Classical Liberalism in the 20th Century," *Literature of Liberty* 5 (Autumn 1982), pp. 3-6, available online at <http://www.econlib.org/library/Essays/LtrLbrty/msEd-Bib1.html>. For a detailed account of the interwar period in Mises's career, see Richard M. Ebeling, "The Economist as the Historian of Decline: Ludwig von Mises and Austria between the Two World Wars," in Richard M. Ebeling, ed., *Globalization: Will Freedom or World Government Dominate the International Marketplace?* (Hillsdale, Mich.: Hillsdale College Press, 2002), pp. 1-68. For a comprehensive biography see Jörg Guido Hülsmann, *Mises: The Last Knight of Liberalism* (Auburn, AL: Mises Institute, 2007).

scarcity: choosing *how* to produce. Having abolished markets and thereby prices for the means of production, the directors of a socialist economy would not know how to combine resources to produce goods economically. Unable to calculate profit and loss, they would be at sea without a compass. Socialism would generate waste and privation, not prosperity. Socialist economists naturally tried to answer Mises, and the “socialist calculation debate” ensued.¹⁵

The defining feature of a socialist economy, for both Mises and the socialists of the day, was the abolition of private property in the means of production (labor, land, raw materials, machines, factory buildings). For Mises any economy with a stock market, where controlling shares in firms (which themselves own and hire means of production) are freely exchanged among private investors, is not a socialist economy. By this definition, Sweden today (for example) does not count as a socialist economy. It is a market economy with high taxes and a large welfare state.¹⁶ Mises wrote: “Production goods in a socialist commonwealth are exclusively communal; they are an inalienable property of the community, and thus *res extra commercium* [things outside the market].”¹⁷ The socialist economist Oskar Lange (discussed later in this chapter) accepted the same definition, contrasting a “socialist economy” to “any system with private ownership of the means of production.” With government rather than private owners or capitalist investors responsible for directing the farms and factories, any coordination of production planning among the factories and farms would fall to a central planning board.

Mises argued that a centrally planned socialist economy, like the new Soviet Russian economy (he was writing *before* Lenin had conceded the need to reintroduce markets), was bound to run poorly. To abolish private property in the means of production is to abolish competitive bidding by capitalists, the market process by which cost-revealing prices for inputs are formed. How do we know, for example, the economic cost – the value of its

¹⁵ For a book-length review of the debate see Don Lavoie, *Rivalry and Central Planning: The Socialist Calculation Debate Reconsidered* (Cambridge: Cambridge University Press, 1985); for a shorter overview, see David M. Levy and Sandra J. Peart, “Socialist Calculation Debate,” in Steven N. Durlauf and Lawrence E. Blume, eds., *New Palgrave Dictionary of Economics*, 2nd ed. (New York: Palgrave Macmillan, 2008).

¹⁶ During the period spanning 1980 to 2007 Sweden’s composite ranking varied between 18th and 40th of 140-plus nations in the Economic Freedom of the World Index. It ranked higher in legal structure and security of property rights, sound money, and freedom to trade, but lower in size of government and regulation. James Gwartney, Robert Lawson, et al., *Economic Freedom of the World: 2009 Annual Report* (Economic Freedom Network, 2009), p. 171. Available online at <http://www.freetheworld.com/release.html>.

¹⁷ Mises, “Economic Calculation,” p. 91.

next-best alternative use – of using a particular plot of land (or a particular tractor) to grow yellow corn? Only by seeing what profit-seeking soybean farmers (and others) will bid for its use in growing soybeans (or other crops) that grow in the same season.

SOVIET SHORTAGES

For the sake of argument, Mises was willing to grant that a socialist economy could have free markets for *consumer* goods. Consumer goods, once produced, could be sold on markets. On these markets, accurate relative prices for consumer goods could in principle arise even in a socialist economy. We should note, however, that the Soviet Union in practice failed to get consumer goods prices right. Historian Sheila Fitzpatrick has described how Russian life in the 1930s suffered from the failure to accurately price (and to allow markets to supply) food, clothing, and housing:

With the transition to a centrally planned economy at the end of the 1920s, goods shortages became endemic in the Soviet economy.... A worker from the Urals wrote that to get bread in his town you had to stand in line from 1 or 2 o'clock at night, sometimes earlier, and wait for almost 12 hours.... Bread was not the only thing in short supply. The situation was no better with other basic foodstuffs like meat, milk, butter, and vegetables, not to mention necessities like salt, soap, kerosene, and matches. Fish disappeared too, even from regions with substantial fishing industries.... Clothing, shoes, and all kinds of consumer goods were in even shorter supply than basic foodstuffs, often being completely unobtainable.... Meanwhile, people lived in communal apartments, usually one family to a room, and in dormitories and barracks.... So acute was the housing crisis in Moscow and Leningrad that even the best connections and official status often failed to secure a separate apartment.¹⁸

David Levy has importantly pointed out that it was *not in the interest* of a Soviet official or store manager, in charge of pricing and allocating a particular good, to seek its market-clearing price when she did not personally benefit from greater store sales. Instead, by setting prices so low as to create shortages in the stores, and by having the *de facto* right to allocate goods in short supply before they reached retail shelves, she could unofficially trade the favor of access to an otherwise-unavailable good in exchange for the favor of access to otherwise-unavailable goods of other sorts. The Soviet humor magazine *Krokodil* illustrated the system at the retail level by imagining the following announcement in a department store: "Dear customer,

¹⁸ Sheila Fitzpatrick, *Everyday Stalinism* (Oxford: Oxford University Press, 1999), pp. 42–7.

in the leather goods department of our store, a shipment of 500 imported women's purses has been received. Four hundred and fifty of them have been bought by employees of the store. Forty-nine are under the counter and have been ordered in advance for friends. One purse is in the display window. We invite you to visit the leather department to buy this purse." Other diversions took place earlier in the supply chain. Thus when Mises and Hayek assumed for the sake of argument that the socialist economy's price-setters would be disinterested, they diverted attention from a key problem.¹⁹

THE NEED FOR INPUT PRICES

Even if central planners sincerely and disinterestedly *wanted* to meet consumer demands, and even if socialist factory managers could consult genuine consumer prices to know what mix of goods consumers were demanding, Mises argued, they would still need guidance from market prices in *producer* goods to know *how best to produce* consumer goods. Suppose that output Z can be produced by various quantities and combinations of the inputs {U, W, X, Y}. Which of the many possible recipes minimizes the cost of Z (avoids waste)? When a lumber yard manager faces the simple decision of whether to use plastic or canvas tarpaulins, his is not purely an engineering problem. The relative prices of the two materials matter. When a farmer decides how much of each type of fertilizer to use per acre, the relative prices of different fertilizers matter. When a railroad company decides where to build a rail line, the prices of various land parcels, and of labor and machines for building bridges and tunnels, matter.

Mises described the problem facing an industrialized "future socialist society," without market prices for inputs, in these terms:

There will be hundreds and thousands of factories in operation.... In the ceaseless toil and moil of this process, however, the administration will be without any means of testing their bearings. It will never be able to determine whether a given good has not been kept for a superfluous length of time in the necessary processes of production, or whether work and material have not been wasted in its completion. How will it be able to decide whether this or that method of production is the more profitable?²⁰

Mises noted that the abolition of market prices is complete only when socialism embraces the entire globe. As of 1920, "the extent to which

¹⁹ David Levy, "The Bias in Centrally Planned Prices," *Public Choice* 67, no. 3 (1990), pp. 213–26.

²⁰ Mises, "Economic Calculation," p. 106.

socialism is in evidence among us constitutes only a socialistic oasis in a society with monetary exchange." A city-owned bus company in a market economy *can* be evaluated for profitability: we can compare its dollar revenues to its dollar expenses. By extension, an entire socialist country, like the USSR, can use world prices for rough guidance. It is like a large (no doubt overly large) vertically integrated and conglomerate firm in the world market economy. But using world prices will of course be impossible "in the case of socialist concerns operating in a purely socialistic environment," that is, if socialism covers the globe.²¹

"CRUSOE" PRODUCTION VERSUS SPECIALIZED PRODUCTION AND TRADE

Socialist planners face the problems of how to divide tasks among specialized production units, how to allocate resources among them, and how to direct them to best advantage. Mises noted that an isolated individual, producing only for himself and not trading with others, can (indeed must) decide without prices what production plans are worth pursuing. The fictional character Robinson Crusoe, who finds himself shipwrecked and alone on a tropical island, can rationally choose whether to use a plot of land for hunting or for farming by directly comparing the benefits (net of "pain-cost") that he expects from the alternative courses of action.²² Crusoe can personally evaluate meat and farm crops, the effort of hunting and the effort of farmwork, to decide what foods he prefers to produce on the plot.

A nonisolated producer in a social economy, by contrast, needs input prices to decide what is worth doing. Even if there are markets to price consumer goods, a market for producer goods or inputs is needed to communicate to each producer the other producers' valuations for alternate uses of those inputs. Only a market for producer goods "enables us to extend to all goods of a higher order the judgment of value" of producers. Without market prices for labor, machines, raw materials, and a market-determined interest rate, "all the longer roundabout processes of capitalistic production would be gropings in the dark."²³ Crusoe-type personal evaluation, without prices, is no longer enough. In a world of multiple producers, "as soon as one gives up the conception of a freely established monetary price for goods of a higher order, rational production becomes completely impossible."

²¹ Ibid., pp. 104–5.

²² Ibid., p. 97.

²³ Ibid., p. 101.

Because money prices for higher-order goods come from competitive bidding by private business owners, Mises adds: “Every step that takes us away from private ownership of the means of production and from the use of money also takes us away from rational economics.”²⁴

WHICH PRODUCTION PROJECTS ARE WORTH IT?

An important premise of Mises’s argument is that there are many *possible* ways to produce any given consumer good. Profit and loss calculation using market prices “affords us a guide through the oppressive plenitude of economic potentialities.” For example: Should power be generated by building a hydroelectric dam, or by digging coal to burn in a power plant? Either project is “roundabout” (involves many stages from blueprint to construction to operation) and complex. In such cases “one cannot apply merely vague valuations, but requires rather more exact estimates and some judgment of the economic issues actually involved.” Only a profitability calculation using market input prices makes more exact estimates and judgment possible.

Explaining how input prices allow an accurate profit-or-loss test, Mises spelled out an important principle in the operation of a market economy:

[C]alculation by exchange value furnishes a control over the appropriate employment of goods. Anyone who wishes to make calculations in regard to a complicated process of production will immediately notice whether he has worked more economically than others or not; if he finds ... that he will not be able to produce profitably, this shows that others understand how to make a better use of the goods of higher order in question.²⁵

For example, the price of concrete, which the builder of a hydroelectric dam must pay to bid concrete away from other potential users, signals the value of concrete in alternative uses. Likewise for the other inputs. If the dam-builder’s project can’t make a profit, it’s because his use of the inputs doesn’t promise to produce as much output value as other bidders’ uses.

Consider two rival entrepreneurs, Barton and Jones. Each borrows \$20,000 from a bank, buys \$10,000 worth of concrete, and hires \$10,000 worth of labor. Each plans to combine the inputs and sell the resulting output. From the proceeds each then will repay his bank \$21,000 (loan principal plus interest) and keep any remainder as profit. Barton builds a swimming pool, for which he is paid \$20,000. Result: \$1000 loss. Jones builds a tennis

²⁴ Ibid., p. 104.

²⁵ Ibid., pp. 97–8.

court, for which he is paid \$22,000. Result: \$1000 profit. Why did Barton have to pay \$10,000 for the concrete in the first place? Because at any lower price Jones and others would have outbid him for the available concrete. Jones and others are willing to bid the market price up to \$10,000 because they estimate that *their* uses for the concrete will add at least \$10,000 in output value, yielding them a profit. Barton's use, as it turns out, adds less value – so he makes a loss. The fact that Barton can't make a profit while paying the market prices for concrete and labor shows that Jones and others understand how to make better uses of the concrete and labor.

The market pricing process, driven by bidding from profit-seeking entrepreneurs, assigns prices to inputs according to their anticipated value-added in producing consumer goods. Guided by prices, the profit-seeking entrepreneur, Mises wrote,

puts goods of a higher order into such use as produces the greatest return. In this way all goods of a higher order receive a position in the scale of valuations in accordance with the immediate state of social conditions of production and of social needs.²⁶

THE PROFIT TEST MAKES “INTELLECTUAL DIVISION OF LABOR” POSSIBLE

Profit calculations allow an economy to have, instead of a single central planner, many decentralized production decision-makers. Letting just anybody decide how to use some of society's scarce productive resources is a socially viable approach only if there is some system in place that identifies and discourages wasteful decisions. As Mises put it, decentralization in a world of scarcity “entails a kind of intellectual division of labor, which would not be possible without some system of calculating production and without economy.”²⁷ Hayek would later underscore the point that the price system allows society to utilize bits of specialized production knowledge dispersed across many minds.

A sports analogy may help make the point clear, at least for those familiar with American football. Should a football team, assuming they want to win, allow the quarterback to call plays on offense, or should a coach call them from the sideline? The answer depends entirely on whether the quarterback's play-calling *works*. The team can evaluate whether it works

²⁶ Ibid., p. 107.

²⁷ Ibid., p. 102.

by consulting a rather direct profitability test: does the quarterback's play-calling result in the team scoring more points?

WHY NOT VALUATION BY LABOR INPUT?

Mises's argument embodied the neoclassical *marginal productivity theory* of factor prices, which teaches that the price of a productive input (raw material, machine-hour, labor-hour), in a market where entrepreneurs competitively bid for it, reflects the value of the input's marginal contribution to the revenue from output sales. Marxian socialists of 1920 embraced an earlier theory of price: the classical labor theory of value. According to the labor theory, a good's appropriate price is proportional to the necessary amount of labor time it embodies. If one embraces the labor theory, and thinks that experts in the central planning ministry can determine the number of labor hours technically necessary, then entrepreneurial bidding for inputs becomes superfluous. The planners simply assign appropriate prices in proportion to necessary labor time.

Mises pointed to two problems with "valuation in terms of labor." First, it fails to account for the value of natural resources. Weekly and seasonal variations in the market price of crude oil are not explained by variations in the labor time needed to find and pump out oil from the ground. Second, labor is not uniform, but comes in different qualities. For these and other reasons embodied labor-time poorly matches actual price in a market economy, making labor-time valuation a poor substitute for market pricing. The "labor theory of value" is a false theory of price.²⁸

THE LABOR THEORY OF VALUE AND ITS PROBLEMS

The labor theory of value, as economist David Prychitko has noted, forms "a major pillar of traditional Marxian economics" as expositied in Marx's major work *Capital* (1867). To explain relative prices the theory asserts, in Prychitko's words, the following: "If a pair of shoes usually takes twice as long to produce as a pair of pants, for example, then . . . the competitive price of shoes will be twice the price of pants."²⁹ Marx borrowed the theory from the classical economists, whose leading figures were Adam Smith, David Ricardo, and John Stuart Mill. Smith's example in *The Wealth of Nations*

²⁸ Ibid., pp. 112–16.

²⁹ David L. Prychitko, "Marxism," in David R. Henderson, ed., *The Concise Encyclopedia of Economics* (Indianapolis: Liberty Fund, 2008), p. 337.

(1776) was not two pairs of pants for one pair of shoes, but two deer for one beaver.³⁰ David Ricardo opened the first chapter of his *The Principles of Political Economy* (1817) with the statement: “The value of a commodity, or the quantity of any other commodity for which it will exchange, depends on the relative quantity of labour which is necessary for its production.”³¹ John Stuart Mill, in his own *Principles of Political Economy* (1848, plus many later editions) advanced essentially the same theory. In many ways Marx’s *Capital* was the last gasp of classical price theory.

The appeal of the labor theory of value was that it seemed to explain the tendency for price to equal cost. The classical economists rejected the alternative, a theory deriving value from consumer preference or demand, in part because it seemed to create the following paradox: a diamond is much less vital than a gallon of water (if you had to give up all diamonds or all water, which would you choose to keep?), and yet the diamond has a much greater market price.

On closer examination, the labor theory of value unravels. One way to unravel it is to note that the theory is inconsistent with the core economic principle – accepted by Marx – that competition equalizes rates of return across investments. Suppose a pint of berries is produced by applying ten manhours today (to find the seeds and plant them; for simplicity assume that labor is the only input), then waiting one year. Suppose a bushel of apples is produced by applying ten manhours today (no other inputs), then waiting *two* years. Labor input is the same, but the two product prices *can’t* be the same in equilibrium, because that would imply a lower annual rate of return on producing apples. Nobody would invest in a two-year process that yields no more revenue from a given expense than a one-year process. In equilibrium, given a positive interest rate, the apples have to sell for more, despite the same labor-time input, or no apples will be grown. Ricardo recognized this problem, but shrugged it off, saying that the labor theory of value was still *approximately* accurate. Marx promised to resolve the contradiction in the third volume of *Capital*, but never did. The Austrian economist Eugen von Böhm-Bawerk, in an essay on *Karl Marx and the Close of His System* (1896), took Marx to task for this failing.

³⁰ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, ed. R. H. Campbell, A. S. Skinner, and W. B. Todd (Indianapolis: Liberty Classics, 1981), p. 65. Available online at oll.libertyfund.org/title/220. Smith proposed the pure labor theory for an “early and rude state of society” without capital or scarce land.

³¹ David Ricardo, *The Principles of Political Economy* (London: John Murray, 1817). Available online at <http://www.econlib.org/library/Ricardo/ricP1.html#Ch.1>, On Value.

Another example illustrates the inability of the labor theory of value to accommodate the influence of interest (or waiting) on price. A casual survey of online prices for various types of Glenlivet single-malt Scotch turns up the following:

- 12-year, 86 proof, 750 ml, \$30
- 15-year, 86 proof, 750 ml, \$45
- 18-year, 86 proof, 750 ml, \$62

If we can reasonably assume that equal manhours are needed in preparation, distilling, and barreling, so that the only production difference is how long the Scotch is left in the barrel, then these price differences are inconsistent with a pure labor theory of value. (The obviousness of price differences in Scotches of different ages makes one wonder how the Scotsman Adam Smith could have embraced a labor theory of value.) Differences of this sort are not only consistent with but are *required* for equal rates of return.

The most fundamental flaw of the labor theory of value (and of the generalized cost-of-production theory of value that Smith and others also advanced) is its supposition that the price of a good reflects an *intrinsic* feature of the good, something infused during its production, rather than something in the minds of its buyers. It supposes that input cost determines selling price, rather than *vice-versa*. Early critics of the theory like Samuel Bailey (1825) noted that demand and scarcity together were necessary and sufficient to explain a positive price (and resolved the diamond-water paradox), but labor input was neither necessary nor sufficient. Naturally fertile plots of land have no labor input yet high value. Bad works of art may embody many hours of labor input yet have little or no market value. But the critics hadn't fully spelled out an alternative theory.

The labor theory of value continued to dominate economics texts, despite its known problems, until the elaboration of a better theory: the subjective or marginal-utility theory of value. The marginalist revolution was independently but simultaneously launched in 1871 by Carl Menger, William Stanley Jevons, and Léon Walras. Menger wrote: "Goods always have value to certain economizing individuals and this value is also determined only by these individuals." Jevons added that the value of labor "must be determined by the value of the produce, not the value of the produce by that of the labour."³² That is, consumer goods are valuable regardless of what it took

³² Carl Menger, *Principles of Economics* (New York: New York University Press, 1976), p. 146; William Stanley Jevons, *The Theory of Political Economy* (London: Macmillan, 1871), pp. 160–1.

to produce them. Labor does not infuse value into consumer goods. The value of the labor is instead derived from the contribution it is expected to make to the independently valued consumer goods.

THE PROBLEM OF INCENTIVE UNDER SOCIALISM

Experience shows that lack of incentive for workers and managers is *also* a major problem in a centrally planned economy. The Soviet workers' unofficial motto was: "They pretend to pay us, and we pretend to work." Factory managers who do not keep any profits have little incentive to think creatively or even to work hard at reducing waste in routine tasks. Mises argued that the calculation problem is more fundamental, because it would remain even if the incentive problems were solved:

But even if we for the moment grant that ... each individual in a socialist society will exert himself with the same zeal as he does today in a society where he is subjected to the pressure of free competition, there still remains the problem of measuring the result of economic activity in a socialist commonwealth which does not permit of any economic calculation. We cannot act economically if we are not in a position to understand economizing.³³

Such an argument doesn't really show that the calculation problem is *more* fundamental, however. One could equally for the moment grant that the central planners could arrive at the right prices, and note that there still remains the problem of getting workers and managers to exert themselves. *Both* calculation and incentive are fundamental problems.

OSKAR LANGE'S RESPONSE TO MISES'S CHALLENGE

As Mises summarized his argument, "Where there is no free market, there is no pricing mechanism; without a pricing mechanism, there is no economic calculation."³⁴ The socialist economist Oscar Lange would accept the second proposition, but reject the first.

Lange, a Polish economist at that time working in the United States, replied to Mises in an important two-part article "On the Economic Theory of Socialism" (1936–7), which advocated what came to be known as "market socialism."³⁵ Lange began by acknowledging the importance

³³ Mises, "Economic Calculation," p. 120.

³⁴ *Ibid.*, p. 111.

³⁵ Oskar Lange, "On the Economic Theory of Socialism: Part One," *Review of Economic Studies* 4 (October 1936), pp. 53–71; Lange, "On the Economic Theory of Socialism: Part

of Mises's challenge to socialist theory. He wryly suggested that the new Socialist ministry should honor Mises with a statue for his contribution to the socialist cause:

Socialists have certainly good reason to be grateful to Professor Mises, the great *advocatus diaboli* [devil's advocate] of their cause. For it was his powerful challenge that forced the socialists to recognize the importance of an adequate system of economic accounting to guide the allocation of resources in a socialist economy. Even more, it was chiefly due to Professor Mises' challenge that many socialists became aware of the very existence of such a problem. . . . Both as an expression of recognition for the great service rendered by him and as a memento of the prime importance of sound economic accounting, a statue of Professor Mises ought to occupy an honourable place in the great hall of the Ministry of Socialisation or of the Central Planning Board of the socialist state.³⁶

Lange agreed with Mises that the labor theory of value won't do for guiding producers to supply economically what consumers want. Marx, he noted, "seems to have thought of labour as the only kind of scarce resource to be distributed between different uses and wanted to solve the problem by the labour theory of value. . . . Professor Pierson and Professor Mises have certainly merited the gratitude of the student of the problem by exposing the inadequacy of this simplicist solution." Lange proposed to guide a socialist economy using modern marginalist economic theory, not Marxian or other classical economics: "The limitations of Marx and Engels are those of the classical economists."³⁷ Where Marxians promised to overthrow the logic of market relations, Lange promised to apply the logic more rigorously. A market-socialist economy would outdo any actual capitalist economy in achieving the efficiency of the neoclassical model of perfect competition.

The anti-Marxian part of Lange's market-socialist position naturally attracted criticism by contemporary Marxian economists, most notably

Two," *Review of Economic Studies* 4 (February 1937), pp. 123–42. Other important contributions to market-socialist theory included Fred M. Taylor, "The Guidance of Production in a Socialist State," *American Economic Review* 19 (March 1929), pp. 1–8; H. D. Dickinson, "Price Formation in a Socialist Community," *Economic Journal* 43 (June 1933), pp. 237–50; Abba P. Lerner, "Economic Theory and Socialist Economy," *Review of Economic Studies* 2 (1934); and Lerner, *The Economics of Control* (New York: Macmillan, 1940). Lange's and Taylor's essays were reprinted together in Benjamin E. Lippincott, ed., *On the Economic Theory of Socialism* (Minneapolis: University of Minnesota Press, 1938).

³⁶ Lange, "Socialism: Part One," p. 53.

³⁷ Lange, "Socialism: Part Two," p. 138. "Prof. Pierson" refers to Nicolaas Gerard Pierson (1839–1909), who anticipated some of Mises' arguments in a 1902 article (in Dutch), translated as "The Problem of Value in the Socialist Community" in Hayek, ed., *Collectivist Economic Planning*, pp. 41–86.

Maurice Dobb of Cambridge. Dobb rejected what he saw as Lange's needless concessions to capitalist principles, like producing what consumers want rather than what experts determine is good for them. Citing a leading state-owned monopoly enterprise in prewar Britain, Dobb asked with complete sincerity: "Few, surely, could seriously maintain that the amount and sort of music to be played by the B. B. C. should be decided by a market mechanism?"³⁸

OSKAR LANGE

Oskar Lange (1904–65) received his doctorate in economics in 1928 from the University of Krakow in Poland. He taught statistics at Krakow from 1931 to 1934, and was active in the Socialist Party. He published a Party tract, "The Road to Socialist Planned Economy" in 1934. For the next two years he was a Rockefeller Foundation Fellow in United States. He then had a series of short teaching appointments at the University of Michigan, University of California – Berkeley, and Stanford University. In 1939 he became a professor of economics at the University of Chicago, where he remained until he left academia in 1945 to become the newly communist Poland's ambassador to the United States and then its representative to the United Nations. He returned to Poland in 1948 and remained until his death in 1965, becoming a member of parliament and an official in Poland's central planning efforts.

LANGE'S ANSWER TO MISES

Lange rejected Mises's claim that "Where there is no free market, there is no pricing mechanism." Lange argued that a socialist system can set and use prices, too. He charged that "Professor Mises' contention that a socialist economy cannot solve the problem of rational allocation of its resources is based on a confusion concerning the nature of prices." Prices are merely trade-off ratios, the "terms on which alternatives are offered." Prices are certainly needed, but they need not originate in markets: a Socialist ministry can set them, and set them even better. Lange characterized the general logic of resource allocation as a mathematics problem:

The economic problem is a problem of choice between different alternatives. To solve the problem three data are needed: (1) a preference scale ... ;

³⁸ Maurice Dobb, *On Economic Theory and Socialism: Collected Papers* (London: Routledge, 1953), p. 73.

(2) knowledge of the “terms on which alternatives are offered,” and finally (3) knowledge of the amount of resources available. Those three data given, the problem of choice is solvable.³⁹

HOW DOES THE SOCIALIST PLANNING MINISTRY GAIN THE KNOWLEDGE IT NEEDS?

Mises had in effect denied that knowledge of the appropriate trade-offs, the “terms on which alternatives are offered” by market prices, can exist without markets. Lange replied:

Professor Mises denies this. However, a careful study of price theory and of the theory of productions convinces us that, the data under (1) and under (3) being given, the “terms on which alternatives are given” are determined ultimately by the technical possibilities of transformation of one commodity into another, i.e. by the production functions. The administrators of a socialist economy will have exactly the same knowledge, or lack of knowledge, of the production functions as the capitalist entrepreneurs have.⁴⁰

Given the set of least-cost production functions, we can mathematically solve for the appropriate trade-off ratios among commodities, which gives us the appropriate relative prices. Hayek would later argue that Lange was simply assuming what needed to be shown, because least-cost production functions are not “given” and are systematically uncovered only in competitive markets.

DETERMINING PRICES FOR INPUTS WITHOUT MARKETS

Lange proposed that the Central Planning Board could set the right prices in the same way that he supposed that a market does it – by trial and error. The Board could begin with a random price for (say) cement. If a shortage results at that price, the Board would raise the price. If a surplus results, lower the price. Eventually the Board would home in on the equilibrium price. In Lange’s words: “The Central Planning Board would fix this price so as to satisfy the objective equilibrium conditions, just as a competitive market does.” The Swiss economist Léon Walras in his theory of general equilibrium had shown, Lange noted, that a consistent set of equilibrium prices can in principle be found through a trial-and-error or *tatonnement*

³⁹ Lange, “Socialism: Part One,” p. 54. The mathematics needed is the calculus of constrained maximization.

⁴⁰ Ibid., p. 55.

process.⁴¹ Factory managers would passively accept the Central Planning Board's prices in Lange's socialist economy, just as producers passively accept market prices in the perfectly competitive market economy of the Walrasian model.

Does it follow from the Walrasian analysis of equation-solving that a Central Planning Board can find the right prices? Lange and other market socialists claimed, but Mises and Hayek disputed, that equation-solving captures what markets do, and that a Board *could know* in real time the right set of equations to be solved, fully incorporating all of the economy's tastes, least-cost production functions, and resource endowments.

WHY PREFER SOCIALISM, IF IT MERELY REPLICATES COMPETITIVE MARKETS?

To this point, Lange seemed to be arguing merely that a socialist regime could replicate what a competitive market economy already does. So why did he prefer socialism? Posing this question to himself, Lange answered by citing what he saw as four advantages to the socialist system. (1) It can redistribute endowments, namely toward greater equality, "so as to attain the maximum social welfare."⁴² (2) It can modify prices to correct for external effects and (3) eliminate monopoly pricing, in both ways approaching the ideal of perfect competition more closely than a market economy. (4) Socialism is better able to foster technological progress.⁴³

In his case for redistribution, Lange assumed that an economist can measure "social welfare" by measuring each person's "utility" and then adding up all the scores. To maximize the social utility derived from income, central planners are to equate the "marginal utility of income" across people. If Jane gets more "utility" out her last dollar than Jill out of hers, take a dollar from Jill and give it to Jane, and repeat as necessary. Total social utility rises to its maximum.

Lange here disregarded the arguments of the British economist Lionel Robbins, who in his book *The Nature and Significance of Economic Science*, published just three years earlier, had denied that utility measurement or interpersonal utility comparison was meaningful. The "marginal utility" of consumer demand theory in economics is merely an individual's personal preference-ranking indicator. As such, an individual's marginal utility of

⁴¹ Lange cited a 1926 French edition of Léon Walras, *Elements of Pure Economics* (London: Routledge, 2003). *Tatonnement* means "groping."

⁴² Lange, "Socialism: Part One," p. 55.

⁴³ Lange, "Socialism: Part Two," p. 123.

income is his preference-ranking in a choice between “an extra dollar of income” or “additional leisure” for himself. It has no measurable magnitude, and comparing a personal preference-ranking indicator across individuals is meaningless. The hedonic or pleasure-net-of-pain “utility” of utilitarianism, which supposedly can be measured and aggregated across individuals, is something else again, something not grounded in economic theory.⁴⁴

To use prices to correct external effects (or “internalize externalities”), that is, to raise the price facing an actor wherever it falls short of the social cost of his action (or to lower the price wherever the marginal private benefit falls short of the marginal social benefit), was a prescription that Lange had borrowed from the British economist Arthur C. Pigou. Pigou had envisioned that external effects could be corrected in a market economy via taxes and subsidies, but did not explain how to measure the magnitude of the effects so as to compute the right sizes for taxes and subsidies. (This is a serious problem, as explained in [Chapter 13](#).) Lange likewise did not explain how the Central Planning Board would know, or could use trial-and-error to discover, the precise magnitude of external effects so as to adjust prices appropriately.

Eliminating external effects implied, for Lange, that “a socialist economy would not be subjected to the fluctuations of the business cycle.” Any spill-over effects of closing a factory on aggregate output, for example, would be taken into account by the Central Planning Board.⁴⁵

Regarding monopoly, Lange argued that:

... the actual capitalist system is not one of perfect competition; it is one where oligopoly and monopolistic competition prevail... The actual capitalist system is much better described by the analysis of Mrs. Robinson and Professor Chamberlin than by that of Walras and of Marshall. But the work of the latter two will be more useful in solving the problems of a socialist system.⁴⁶

Here he referred to Joan Robinson and Edward H. Chamberlin, who had developed theories of “imperfect” or “monopolistic” competition, in contrast to Walras’s theory of perfectly competitive general equilibrium and Marshall’s theory of competitive partial equilibrium. Thus, although the socialist state will have a legal monopoly of every industry, Lange imagined that the managers of state-owned factories would receive and follow instructions to act like perfect competitors.

⁴⁴ Lionel Robbins, *The Nature and Significance of Economic Science* (London: Macmillan, 1932). We will discuss utilitarianism at length in [Chapter 7](#).

⁴⁵ Lange, “Socialism: Part Two,” p. 126.

⁴⁶ *Ibid.*, p. 127.

Capitalism in its younger days, Lange granted, had made great technological advances. But henceforth socialism would be better able to foster progress, because mature capitalism resists any innovation that makes old capital equipment obsolete. It is “the contention of the socialists,” he wrote, that “the institutions of private property of the means of production and of private enterprise ... at a certain stage of technical development, ... turn, from being promoters, into becoming shackles of further advance” because of their “tendency to maintain the value of old investment.” The only solution is “the abolition of private enterprise [*sic*] and of the private ownership of capital and natural resources, at least in those industries where such tendency prevails.”⁴⁷

Lange’s contention that capitalism retards technological progress echoed a similar argument by the American institutionalist economist Thorstein Veblen (discussed in [Chapter 4](#)). The contention that socialism better fosters technical progress is hard to take seriously for anyone who has observed, for example, the complete stagnation of automobile design under state ownership of the auto factories. When Argentina nationalized its Ford factories, the latest model was the 1963 Ford Falcon. An American visiting Buenos Aires in 1988, twenty-five years later, was astounded to find that the majority of cars on the streets still had the body of a 1963 Ford Falcon. A state-owned factory facing no competitive rivals has little or no incentive to go out on a limb by undertaking risky technological innovation.

MISES’S RESPONSE TO LANGE

In his treatise *Human Action* (1949), Mises responded to Lange’s proposal. Where Lange had imagined factory managers acting *as if* they were profit-seeking entrepreneurs when bidding for inputs, Mises argued that finding prices through decentralized bidding only works where profit-making bidders *really are* profit-seekers, that is, receive material rewards for bidding more wisely than others and face material losses and weeding-out otherwise. Without personal profits and losses at stake, the “bidding” would not be genuine: “One cannot *play* speculation and investment.”⁴⁸ Of course a socialist economy could not allow industrialists or speculators to keep their profits (or to have personal wealth great enough to cover losses on money borrowed), because that would be capitalism, not socialism. Completely taxing profits away would completely suppress entrepreneurial activity.⁴⁹

⁴⁷ Ibid., pp. 128, 130–1.

⁴⁸ Ludwig von Mises, *Human Action*, 3rd rev. ed. (Chicago: Henry Regnery, 1966), p. 709.

⁴⁹ Ibid., pp. 708–9.

Market socialists, Mises charged, were focusing on the minor managerial decisions of existing firms, overlooking the big entrepreneurial decisions that create and destroy firms. It is the latter “financial transactions of promoters and speculators that direct production into those channels in which it satisfies the most urgent wants of the consumers in the best possible way.”⁵⁰ In Mises’s view, Lange had missed the importance of speculative financial markets for allocating investment among new enterprises because he did not step outside the Walrasian general equilibrium framework where the list of possible production activities is “given” and the technical production possibilities – the mappings from inputs to outputs – are also “given.”

HAYEK’S INITIAL CRITIQUE OF MARKET SOCIALISM AND LANGE’S LETTER IN REPLY

Hayek responded to Lange’s case for market socialism in two articles. The first, “Socialist Calculation: The Competitive Solution” (1940), recognized Lange’s work as an improvement over the earlier view that a socialist economy could plan production without reference to economic values or relative prices, and over the view that “the object of planning is largely to overcome the results of competition.” It offered a much more sophisticated proposal, namely to have a Central Planning Board periodically set relative prices through a quasi-market mechanism of feedback from surpluses and shortages. Hayek found Lange’s proposed price-setting mechanism slower and clunkier than a free market, where prices adjust daily. More importantly, instructing producers to treat output and input prices as “given” and “constant” would actually block efficient production by eliminating rivalry among producers, that is, the underbidding for customers and outbidding for inputs by lower-cost producers who seek to expand operations and attract more customers. Such rivalry is the main force by which “a truly competitive economy brings about the reduction of costs to the minimum discoverable.”⁵¹

Hayek’s second article in response to the idea of market socialism, “The Use of Knowledge in Society” (1945), became Hayek’s best-known article among academic economists. The market socialists like Lange assumed, Hayek noted, that the cost curves for supplying any consumer good or intermediate good are uniquely determined by the prices of the output and

⁵⁰ Ibid., pp. 707–8.

⁵¹ F. A. Hayek, “Socialist Calculation: The Competitive Solution,” *Economica* 7 (May 1940), pp. 125–49; also reprinted in Hayek, *Individualism and Economic Order* (Chicago: Gateway, 1972).

of the inputs used to produce it, together with “given” production functions (the known best recipes for transforming inputs into outputs). Hayek amplified an objection that he had briefly raised in his 1940 article, that Lange was begging the question of how least-cost production functions became known. The best recipes are not simply “given” – there is no best recipe book to be consulted – but are discovered in a market economy through the rivalry of profit-seeking entrepreneurs. Competing entrepreneurs will experiment with various manufacturing, distribution, and organizational techniques that they hope will prove more profitable. (Nor are the consumer goods to be produced given: entrepreneurs will also experiment with changes in the product in hopes that consumers will reward them with greater sales revenue.) The bottom line, profit or loss, will tell them whether their innovations have succeeded.

Lange’s account, Hayek argued, assumed that the Central Planning Board already has all the information it needs to choose the right production techniques. The Board’s only problem is the mathematical problem of solving a Walrasian system of equations for the optimum set of prices and output quantities, a set at which “the marginal rates of substitution between any two commodities or factors must be the same in all their different uses.” Hayek granted that a math problem of this kind can be solved: “*If* we possess all the relevant information, *if* we can start out from a given system of preferences, and *if* we command complete knowledge of available means, the problem which remains is purely one of logic.” But this kind of equation-solving, whether by computation or trial-and-error, “is emphatically *not* the economic problem which society faces” because “the ‘data’ from which the economic calculus starts are never for the whole society ‘given’ to a single mind which could work out the implications and can never be so given.”⁵² Bits of knowledge and hunches about lower-cost production techniques are scattered across many minds, waiting for the market process to assemble and test them. The Central Planning Board *can’t* know all that it would need to know to match the market’s use of knowledge, because central planning rules out the process of entrepreneurial discovery.

KEY INFORMATION IS DISPERSED

The market economy makes better use of the relevant knowledge we have about resources and technologies, Hayek argued, because it better mobilizes

⁵² Friedrich A. Hayek, “The Use of Knowledge in Society,” in *Individualism and Economic Order*, p. 77. Reprinted from *American Economic Review* 35 (September 1945).

distributed information from many minds. Each business owner knows “particular circumstances of time and place” that others do not know:

The economic problem of society is thus not merely a problem of how to allocate “given” resources – if “given” is taken to mean given to a single mind which deliberately solves the problem set by these “data.” It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge which is not given to anyone in its totality.⁵³

Lange’s claim that “The administrators of a socialist economy will have exactly the same knowledge, or lack of knowledge, of the production functions as the capitalist entrepreneurs have” assumed that *the* production functions can be found in an engineering manual available to the central administrators. But, Hayek countered, the relevant knowledge is not purely a matter of engineering. One production function does not fit all firms in an industry even if they use the same machines, because they differ in location, available raw materials, and available labor skills. To produce profitably, the producer on the spot must know how to modify production along many dimensions in response to a host of changing local factors: prices and characteristics of inputs, depreciation of his particular plant and equipment, the weather, and so on.⁵⁴ Ours is a world where “the economic problem of society is mainly one of rapid adaptation to changes in the particular circumstances of time and place.”⁵⁵ There is much more to producing efficiently than following an engineering manual and solving an optimization equation.

WHO PLANS FOR WHOM?

Socialists appealed to the idea that planning is better than no planning. Hayek replied that the debate was not over planning as such, but over the *centralization* of planning. The question actually under discussion was: *Who* is to do the planning?

Planning in the specific sense in which the term is used in contemporary controversy necessarily means central planning – direction of the whole

⁵³ Ibid., pp. 77–8. *Data* is Latin for “things given.” For interesting reflections on the importance of Hayek’s dispersed knowledge concept see Edmund S. Phelps, “Macroeconomics for a Modern Economy,” *American Economic Review* 97 (June 2007), pp. 543–561.

⁵⁴ Ibid., p. 82

⁵⁵ Ibid., p. 83.

economic system according to one unified plan. Competition, on the other hand, means decentralized planning by many separate persons.⁵⁶

The choice between them boiled down, in Hayek's view, to which system would make better use of the knowledge dispersed among producers and would-be producers:

Which of these systems is likely to be more efficient ... depends on whether we are more likely to succeed in putting at the disposal of a single central authority all the knowledge which ought to be used but which is initially dispersed among many different individuals, or in conveying to the individuals such additional knowledge as they need in order to enable them to fit their plans with those of others.⁵⁷

MARKETS COORDINATE DECENTRALIZED PLANS THROUGH PRICE SIGNALS

Market prices and profit-or-loss feedback enable decentralized production planners to coordinate their plans with the plans of their input providers and their customers. Hayek famously offered the market for tin as an example. Suppose a tin mine collapses or, alternatively, a new use for tin is discovered. There is no longer, at the previous price, enough tin to go around. If society wants to limit the use of tin to what are now its most valuable uses, how do we get current users to cut back on the least valuable uses? The competitive market approach is to let the price of tin be bid up to the new market-clearing level, and let each tin user decide which uses are no longer worth the now-higher price. Producers will to some extent reduce the output of goods requiring tin, and where substitution is possible will switch to producing with substitute metals where that has become the more profitable option. The remarkable outcome, in Hayek's words, is that:

without an order being issued, without more than perhaps a handful of people knowing the cause, tens of thousands of people whose identity could not be ascertained by months of investigation, are made to use the material or its products more sparingly; i.e., they move in the right direction.⁵⁸

The cutbacks in use continue – because the price continues rising – until the quantity demanded once again equals the quantity supplied. Without any overall plan, decentralized producers sacrifice exactly the least valuable

⁵⁶ Ibid., p. 79.

⁵⁷ Ibid.

⁵⁸ Ibid., p. 87.

uses of tin. Producers forego those uses of tin that they consider not worthwhile at the higher price, and only those uses.

Hayek emphasized the economy of information with which the adjustments come about. To know that conditions now call on them to use less tin, users only need to know that the price of tin has risen. Thus prices act as *signals*: “We must look at the price system as such a mechanism for communicating information if we want to understand its real function.”⁵⁹ Coordination by price signals, rather than by commands, leaves each individual free to pursue any occupation or enterprise provided he or she is prepared to accept the prices the market offers for services in that area. The spontaneous division of labor into specialized occupations, and thus our modern civilization, has arisen only because we “happened to stumble upon a method which made it possible,” namely coordination through a market price system. Central planning, by contrast, restricts “the extent to which the individual can choose his pursuits and consequently freely use his own knowledge and skill.” In later work Hayek would expand upon the implications of central planning for personal liberty (see [Chapter 6](#)).

THE CORRECT PRICES FOR INPUTS DO NOT FOLLOW FROM OUTPUT PRICES ALONE

Lange was not the only economists to think that the existence of a mathematical solution to the Walrasian general equilibrium model showed the feasibility of central planning. The well-known Harvard economist Joseph Schumpeter, trained like Hayek at the University of Vienna, but uninfluenced by Mises, took it for granted that Walrasian theory solved the calculation problem. Hayek commented that Schumpeter, in his popular book *Capitalism, Socialism, and Democracy* (1942),

argues that the possibility of a rational calculation in the absence of markets for the factors of production follows for the theorist “from the elementary proposition that consumers in evaluating (‘demanding’) consumers’s goods *ipso facto* also evaluate the means of production which enter into the production of these goods.”

Taken literally, this statement is simply untrue.⁶⁰

Output prices are *not* enough to determine input prices, Hayek insisted, because there are many ways to produce any output. Knowledge of local supply conditions is dispersed. Competing entrepreneurs in light of their

⁵⁹ Ibid., p. 86.

⁶⁰ Ibid., p. 90.

knowledge and hunches, not consumers, evaluate the means of production. The best techniques are not fixed but must be continually rediscovered, and competitive markets are needed for that discovery.

LANGE AS A CENTRAL PLANNER IN PRACTICE

Lange's views evolved over time. In the decade after 1936 his position moderated. Hayek sent Lange a copy of his 1940 article, and Lange wrote back to Hayek in a letter dated July 1940. He registered a surprising dissent from Hayek's characterization of his position:

I do not propose price fixing by a real central planning board, as a practical solution. It was used, in my paper, only as a methodological device to show how equilibrium prices can be determined by trial and error even in the absence of a market in the institutional sense of the word. Practically, I should, of course recommend the determination of the prices by a thorough market process wherever this is feasible, i.e. wherever the number of selling and purchasing units is sufficiently large. Only where the number of these units is so small that a situation of oligopoly, oligopsony, or bilateral monopoly would obtain, would I advocate price fixing by public agency. . . . I should also like to add that, as pointed out in the last part of my booklet, only in these fields where the automatic process of a competitive market does not function, do I advocate, practically, socialization of industries.⁶¹

Lange's analysis of an economy in which *all* industries are socialized was a "methodological device of analysis" that "quite a number of readers" had misunderstood as "actual political proposals."⁶² Lange promised to write up a piece for publication making this clarification, but never followed through.

The moderate reformist tone of Lange's letter was surprising. Although in the second part of his article Lange had indeed acknowledged that "This does not imply the necessity, or wisdom, of abolishing private enterprise and private property of the means of production in those fields where real competition still prevails, that is, in small-scale industry and farming," these fields were portrayed as exceptions to the rule. The prevalence of "monopoly and restrictionism" meant that "the most important part of modern economic life is just as far removed from free competition as it is from socialism."⁶³ A return to small-scale production and free competition

⁶¹ Oskar Lange, "Oskar Lange's Letter to Hayek (31 July 1940)," in Lange, *Economic Theory and Market Socialism: Selected Essays of Oskar Lange*, ed. Tadeusz Kowalik (Aldershot, UK: Edward Elgar, 1994), p. 298.

⁶² *Ibid.*, pp. 298–9.

⁶³ Lange, "Socialism: Part Two," p. 132.

was economically impossible, and any government antimonopoly regulation was doomed to be captured by big business, so the only way “to have successful public control of enterprise and of investment” was “taking them out of private hands.” State ownership of industry was “the only solution available,” and to make the transition to socialism required not gradualism but “wholesale attack on the capitalist system.”⁶⁴

Now his position was less radical, more reformist. In a 1942 lecture to a socialist student group at the University of Chicago, Lange emphasized, much more clearly than in his essay, but in conformity with his letter to Hayek, that the goal of socialists should be social welfare, and that this meant a more thorough application of competitive market principles. He told them: “we need not abolish the market because capitalism distorts it, but rather have to readapt our system so that the market will actually perform the functions it can and should perform.”⁶⁵ In a 1943 essay proposing reforms for Poland, according to Tadeusz Kowalik, Lange proposed nationalizing the banks and key industries, but “emphasized that the state sector should permanently co-exist with a large private sector, including medium-sized enterprises.” The economy, in Lange’s words, needed to retain the “pliability and flexibility as well as an adaptive capability that private initiative alone can give.”⁶⁶ A further indication of a change of heart toward a more reformist position came in 1945, when the publisher in book form of his 1936–7 article asked him to revise it for a new edition of the book. Lange declined on the grounds that “The essay is so far removed from what I would write on the subject today that I am afraid that any revision would produce a very poor compromise.”⁶⁷

Events then pushed Lange in another direction. In 1945 he left his professorship at the University of Chicago to join Poland’s postwar Soviet-dominated communist government as its ambassador to the United States, and soon became its representative to the United Nations. In 1947 he declared that the newly planned economies behind the Iron Curtain, including Poland’s, “undoubtedly are an economic success.”⁶⁸ He returned to Poland in 1948, where he became chairman of the Polish Economic Council. It appears from his published statements that he pushed for

⁶⁴ Ibid., pp. 133, 136.

⁶⁵ Oskar Lange, “The Economic Operation of a Socialist Society: I” [1942], in Lange, *Economic Theory and Market Socialism*, p. 306.

⁶⁶ Tadeusz Kowalik, “Introduction,” in Lange, *Economic Theory and Market Socialism*, p. xxi.

⁶⁷ Ibid., p. xxii.

⁶⁸ Lange, “The Practice of Economic Planning and the Optimum Allocation of Resources” [1947], in Lange, *Economic Theory and Market Socialism*, p. 170.

somewhat greater reliance on price incentives, but not for a full market-socialist regime. Of course, he may have feared for his life should he oppose the ruling regime too strongly.

“One of the strangest of Lange’s acts, and one of the hardest to explain,” Kowalik has commented, “was his apologetic writing about Stalin’s pamphlet, *On the Economic Problems of Socialism in the USSR*.” But after Khrushchev denounced Stalin, Kowalik noted:

Lange began to play a major role in the reform movement. He became the revisionists’ idol, proclaiming the need for democratization and economic decentralization. It is interesting that he did not, however, return to his idea of market socialism. In renouncing his earlier work, he went so far as to forbid its publication in Polish. In private conversations he justified this on the grounds that he did not want to lend his support to proponents of “socialist laissez-faire.”⁶⁹

In a 1956 essay, in contrast to his position in the letter to Hayek favoring “the determination of the prices by a thorough market process wherever this is feasible,” Lange now emphasized that it was rarely feasible: “Only in exceptional cases, in small-scale industry, either social or private, in which there is a large number of enterprises effectively competing with each other can prices be freely determined by the market mechanism,” and even there “a certain measure of control by the State authorities is necessary.”⁷⁰

In a 1957 address Lange defended the necessity of the Stalinist model of production quotas over the market-socialist model of guidance by prices during the transition to socialism: “It seems to me that the very process of the social revolution which liquidates one social system and establishes another, requires centralized disposal of resources by the new revolutionary state and, consequently, centralized management and planning.” The need for rapid industrialization reinforces the need for “the allocation of resources by means of administrative establishment of priorities.” After transition the authorities will be able to substitute for centralized control “new methods based on the utilization of economic laws.”⁷¹ But Lange no longer spoke of socialism as a means to realize competitive market principles more effectively. Even after the transition, central planning will continue to

⁶⁹ Tadeusz Kowalik, “Oskar Lange’s Market Socialism: The Story of an Intellectual-Political Career,” in Frank Roosevelt and David Belkin, eds., *Why Market Socialism? Voices from Dissent* (Armonk, NY: M. E. Sharpe, 1994), pp. 150–1.

⁷⁰ Lange, “How I See the Polish Economic Model,” in *Economic Theory and Market Socialism*, p. 330.

⁷¹ Lange, “Role of Planning in Socialist Economy,” in *Economic Theory and Market Socialism*, pp. 342–4.

provide “an active determination of the main lines of development of the national economy,” including “the distribution of investments among the different branches of the economy.” To insure “an effective planning of a socialist economy,” both quantity commands and price incentives “have to be used,” though the proportions should shift toward more of the latter. The incentives under socialism, unlike in a capitalist economy, were not to be established by consumer demands but were to be “consciously established by organized society in such a way as to produce the desired result.”⁷²

In a posthumously published 1967 article, Lange returned to defending part of his argument of 1936–7. Observing the development of electronic computing, he proposed that the Central Planning Board could now set prices without the cumbersome trial-and-error method, by using a computer to directly solve a Walrasian model of the economy:

Were I to rewrite my essay today my task would be much simpler. My answer to Hayek and Robbins would be: so what's the trouble? Let us put the simultaneous equations on an electronic computer and we shall obtain the solution in less than a second. The market process with its cumbersome *tâtonnements* appears old-fashioned. Indeed, it may be considered as a computing device of the pre-electronic age.⁷³

The key trouble with Lange's argument from Hayek's perspective was not, however, the computing problem of quickly solving a given set of simultaneous equations. It was the problem of there being no given set of equations. Knowledge of least-cost production techniques in any complex economy is not “given” but must be discovered and continually rediscovered through a rivalrous market process in which entrepreneurs test their hunches about the best ways to produce.

THE VARIED INFLUENCE OF HAYEK'S ARGUMENT

Hayek's critique of Lange led him to the view that *general equilibrium theory* à la Walras, in which all plans (represented by simultaneous equations) are prereconciled, is not enough to appreciate how markets actually work. Hayek suggested that Lange's proposal was “born out of an excessive preoccupation with problems of the pure theory of stationary equilibrium,” with too little consideration of how the workings of actual markets “secure the more rapid and complete adjustment to the daily changing conditions” than

⁷² Ibid., pp. 344–8.

⁷³ Oskar Lange, “The Computer and the Market,” in *Economic Theory and Market Socialism*, p. 361.

would prices “decreed from above.”⁷⁴ Economists cannot just focus on the equilibrium endpoint where all adjustments has been made, but must study how people learn and adjust to new information “if the formal apparatus of equilibrium analysis is to serve for an explanation of the real world.”⁷⁵ In the later essay “Competition as a Discovery Procedure” (1968) Hayek added that we rely on the competitive market process precisely because no single observer knows enough to prescribe exactly what adjustments are needed, or exactly where the new equilibrium lies. The economist Israel M. Kirzner, influenced by Mises and Hayek, has elaborated on the theme of market competition as a discovery process in his book *Competition and Entrepreneurship* (1973) and subsequent writings.

An interviewer from *The New Yorker* magazine (31 July 2006) asked Wikipedia founder Jimbo Wales about his influences. Wales cited Hayek in his answer:

“I’m very much an Enlightenment kind of guy,” Wales told me. The promise of the Internet is free knowledge for everyone, he recalls thinking. How do we make that happen? As an undergraduate, he had read Friedrich Hayek’s 1945 free-market manifesto, “The Use of Knowledge in Society,” which argues that a person’s knowledge is by definition partial, and that truth is established only when people pool their wisdom.⁷⁶

Somewhat like a market, Wikipedia is decentralized, with nobody in charge. Over time, Wikipedia management has modified the rules governing interaction among contributors to make the system behave more like a market, namely to promote convergence rather than endless cycling among contributors with divergent views.

The economist Thomas Sowell elaborated on the themes of Hayek’s “The Use of Knowledge in Society” in his book *Knowledge and Decisions* (1980). In a more recent syndicated column, Sowell distilled his take on the policy implications of the dispersal of relevant knowledge:

If you start from a belief that the most knowledgeable person on earth does not have even one percent of the total knowledge on earth, that shoots down social engineering, economic central planning, judicial activism and innumerable other ambitious notions . . . If no one has even one percent of all the knowledge in a society, then it is crucial that the other 99 percent of knowledge – scattered in tiny and individually unimpressive amounts among the population at large – be allowed the freedom to be used in working out

⁷⁴ Hayek, “Socialist Calculation: The Competitive ‘Solution,’” pp. 131–2.

⁷⁵ Hayek, “Economics and Knowledge,” in *Individualism and Economic Order*, p. 55.

⁷⁶ Stacy Schiff, “Know It All,” *New Yorker* (24 July 2006). http://www.newyorker.com/fact/content/articles/060731fa_fact.

mutual accommodations among the people themselves. These innumerable mutual interactions are what bring the other 99 percent of knowledge into play – and generate new knowledge.⁷⁷

DID THE COLLAPSE OF THE SOVIET ECONOMY SHOW THAT MISES WAS RIGHT?

After the collapse of the USSR in 1989, the economist Robert Heilbroner, author of popular history-of-economic-thought text *The Worldly Philosophers* and a self-described socialist, wrote: “It turns out, of course, that Mises was right.” But the USSR had been a mixed economy, and an “island” in a sea of world markets, not a pure or isolated socialist system. It had openly allowed some markets, for example for produce grown in private gardens, and tolerated many black markets. Soviet planners borrowed Western prices and technologies. The calculation problems they faced did not suddenly grow more severe in 1989. What had changed were incentive and political problems.⁷⁸

The collapse of Lenin’s marketless economy in 1920, on the other hand, testifies to the cogency of Mises’s critique. Lenin’s attempt to abolish the price system resulted in massive shortages, especially in food production. The New Economic Policy of 1921, allowing small private businesses and agricultural wage labor, conceded the necessity of guidance by market prices.

CHANGING VIEWS OF THE SOCIALIST CALCULATION DEBATE

Most economists once thought that Lange and the other market socialists were right about the feasibility of economic calculation under socialism and that they had refuted Mises and Hayek. Abram Bergson’s survey article “Socialist Economics” (1948) became the conventional account of the debate. According to Bergson, Lange and earlier writers had effectively answered Mises’s theoretical argument, after which Hayek had retreated to practical objections. In theory, the planners only need to solve a system

⁷⁷ Thomas Sowell, “Presumptions of the Left,” *Townhall.com* (16 May 2007), http://townhall.com/columnists/ThomasSowell/2007/05/16/presumptions_of_the_left.

⁷⁸ See Bryan Caplan, “Is Socialism Really ‘Impossible’?” *Critical Review* 16 (2004), pp. 33–52, and Peter J. Boettke and Peter T. Leeson, “Still Impossible after All These Years: Reply to Caplan,” *Critical Review* 17 (Winter 2005), pp. 155–70. See also the other comments in the latter issue and Caplan’s reply.

of Walrasian general equilibrium equations, which we know is a soluable mathematical problem:

[O]nce tastes and techniques are given, the values of the means of production can be determined unambiguously by imputation without the intervention of a market process. The [Central Planning] Board ... could decide readily how to allocate resources so as to assure the optimum welfare. It would simply have to solve the equations.⁷⁹

As to the practical workability of socialism (its ability to avoid breakdown or vast starvation), Bergson concluded that “there can hardly be any room for debate: of course, socialism can work. On this, Lange certainly is convincing.” Bergson left it to the reader to judge how closely a socialist economy could approximate the prosperity of a capitalist economy.

Bergson later had second thoughts. In a 1966 postscript to his survey article, he noted that studies of Soviet socialism indicated that

the critics of this system have turned out to be nearer the mark than its proponents. At any rate, if we may judge from the experience of the USSR, there are reasons to doubt that socialism is especially efficient economically.⁸⁰

In a 1967 article entitled “Market Socialism Revisited” he expressed doubt that socialist managers, even under instructions to produce the efficient quantity at minimum cost, could ever come close to efficiency. Even if the socialist system had an accurate test of success (profit or loss), it would face the problem of creating appropriate managerial incentives to grasp profit and avoid loss. Recalling the calculation debate, Bergson remarked:

Hayek argued that such a result might not be easy to achieve. In practice, managers very likely would be reluctant to take risks. This is perhaps not inevitable, but the construction of a satisfactory incentive system now appears more difficult than I envisaged it to be previously.⁸¹

Studying the planning practices of the USSR, Bergson had found that the Soviet system did not approximate the Lange model. Planners lacked an accurate test of success because Soviet prices were uninformative, making profit and loss accounting unreliable. As the USSR actually operated,

Soviet project appraisal continues to have its limitations, and for these the labor theory [of value] is partly responsible.... Almost inevitably, then, the

⁷⁹ Abram Bergson, “Socialist Economics” [1948], reprinted in Bergson, *Essays in Normative Economics* (Cambridge, MA: Harvard University Press, 1966), p. 234.

⁸⁰ Bergson, “Socialist Calculation: A Further Word,” in Bergson, *Essays*, p. 238.

⁸¹ Abram Bergson, “Market Socialism Revisited,” *Journal of Political Economy* 75 (October 1967), p. 658.

very concept of an economic optimum that is integral to economic rationality has been understood only imperfectly. . . . [E]conomic decision making has been notably centralized. . . . [I]n seeking to carry out the onerous responsibilities which they bear, superior agencies at all levels have often found themselves without the information needed for adequate and timely appraisal of alternatives, or if such information is at their disposal, without the capacity to process and digest it sufficiently for such appraisal. . . . In sum, the ruble price system fails to perform the function which, the primers teach, a good price system should – to convey reliable information on prevailing scarcities.⁸²

The late Paul Samuelson, author (and then coauthor) of the long-running best-selling textbook *Economics* (1st edition 1948; 19th edition 2009), also had first and second thoughts about Soviet socialism. In a recent paper, historians of economic thought David M. Levy and Sandra J. Peart show that Samuelson and other American economics textbook authors of the 1960s and 1970s kept forecasting rapid Soviet growth through their books' successive editions, even while their own updated numbers clearly showed that the growth forecasts in previous editions had been too high. In the seven editions of his textbook published from 1961 to 1980, Samuelson kept including a chart indicating that Soviet output was growing faster than U.S. output, and predicting a catch-up in about twenty-five years. He repeatedly had to move the predicted catch-up date forward from the previous edition because the gap had never actually begun to close. In several editions he blamed low realized Soviet growth on bad weather. As late as the 1989 edition of his textbook, he and coauthor William Nordhaus wrote: "The Soviet economy is proof that, contrary to what many skeptics had earlier believed, a socialist command economy can function and even thrive." The "proof" was apparently based on official Soviet output numbers, which are now known to have been seriously exaggerated. After the Berlin Wall fell and the Soviet Union dissolved, the 1995 edition of the Samuelson-Nordhaus text changed its tune, and referred to Soviet central planning as "the failed model."⁸³

The fall of the Berlin Wall and the dissolution of the Soviet Union prompted second thoughts by other economists. Looking back on the

⁸² Abram Bergson, *The Economics of Soviet Planning* (New Haven, CT: Yale University Press, 1964).

⁸³ David M. Levy and Sandra J. Peart, "Soviet Growth and American Textbooks: An Endogenous Past," *Journal of Economic Behavior & Organization* 78 (April 2011), pp. 110–25; Paul A. Samuelson and William D. Nordhaus, *Economics*, 13th ed. (New York: McGraw-Hill, 1989), p. 837; 15th ed. (New York: McGraw-Hill, 1995), p. 714. The change in the Samuelson-Nordhaus text after the collapse of the Soviet system is highlighted by Mark Skousen, "The Perseverance of Paul Samuelson's *Economics*," *Journal of Economic Perspectives* 11 (Spring 1997), p. 148.

socialist calculation debate, Robert Heilbroner observed: “Lange’s answer was so simple and clear that many believed the Mises-Hayek argument had been demolished. In fact, we now know that their argument was all too prescient.” Drawing on a book by two Soviet economists,⁸⁴ Heilbroner cited the example of the Soviet production of moleskins (used to make gloves), which were in severely short supply until the administered price was dramatically raised, after which a large surplus accumulated. Moleskins were rotting in warehouses, but the central planners took their time in pondering whether to adjust the price back down somewhat. Heilbroner emphasized the problem of motivating the planning board to adjust prices in the manner Lange had imagined:

The crucial missing element is not so much “information,” as Mises and Hayek argued, as it is the motivation to act on information. After all, the inventories of moleskins did tell the planners that their production was at first too low and then too high. What was missing was the willingness – better yet, the necessity – to respond to the signals of changing inventories. A capitalist firm responds to changing prices because failure to do so will cause it to lose money. A socialist ministry ignores changing inventories because bureaucrats learn that doing something is more likely to get them in trouble than doing nothing, unless doing nothing results in absolute disaster.⁸⁵

A new consensus view – that Mises’s and Hayek’s case for the infeasibility of central planning was right and had won the debate – was evident in the statement by the economic historian J. Bradford DeLong that “within economics even liberal Keynesian social democrats acknowledge that the Austrians won victory in their intellectual debate with the central planners long ago.”⁸⁶

WITH ITS THEORY IN TATTERS, WHERE DOES SOCIALISM GO?

The collapse of the Soviet model led the Marxian economist John Roemer to make the remarkable admission that socialists today lack a model of their ideal economy:

The major problem for the left today is a lack of theory. Where do we go from here? What kind of society do we wish to fight for? If we socialist intellectuals can provide some direction that will be of inestimable value.⁸⁷

⁸⁴ Nikolai Smelev and Vladimir Popov, *The Turning Point* (New York: Doubleday, 1989).

⁸⁵ Robert Heilbroner, “Socialism,” in Henderson, *Concise Encyclopedia*, p. 468.

⁸⁶ J. Bradford DeLong, “Seeing One’s Intellectual Roots: A Review Essay on James Scott’s *Seeing like a State*,” *Review of Austrian Economics* 12 (November 1999), pp. 257–64.

⁸⁷ John Roemer, “Socialism’s Future: An Interview with John Roemer,” *Imprints* 3 (1998), p. 23; quoted by David Schmidtz, “When Justice Matters,” *Ethics* 117 (April 2007), p. 437.

Roemer's statement seemed to assume an audience committed to socialism even though they don't quite know what kind of economy or society it implies. If the complete abolition of private property and markets has led to disaster, as under Lenin, and the Soviet Union under Lenin's successors failed to deliver and finally collapsed, what form of socialism remained to be advocated? Is there any form of government control over the commanding heights that enhances rather than suppresses prosperity? We will pick up this thread in [Chapters 7 and 8](#) with discussions of Fabian socialism and fascism.

The Roaring Twenties and Austrian Business Cycle Theory

The Yale University economist Irving Fisher invented a clever system for easily displaying index cards, later known as the Rolodex. He sold his Index Visible Company for a tidy sum in 1925, amidst the economic boom years known as the Roaring Twenties. In the next few years he turned that sum into a reported \$10 million fortune (the equivalent of \$132 million in 2011 dollars) by speculating in stocks. Stock prices were rising rapidly, and Fisher's positions soared. He became known as a stock market prognosticator. On October 15, 1929, he told a dinner meeting audience in New York City, as reported by the *New York Times*, that stock prices had reached "what looks like a permanently high plateau." He said he agreed with another observer that "the market may be at its peak now and for several months to come," but added, "I do not feel there will soon, if ever, be a 50 or 60 point break from present levels, such as [he] has predicted." Fisher was even more optimistic in the question-and-answer period, saying that he expected "to see the stock market a good deal higher than it is today within a few months."¹

Two weeks later the market crashed. Fisher was wiped out, having borrowed heavily to buy stocks on margin. To pay his debts he was forced to sell his New Haven home. He then turned to his sister-in-law for a place to live.

The stock market crash followed a downturn in manufacturing output that had begun a few months earlier. Economies in other industrial

¹ "Fisher Sees Stocks Permanently High," *New York Times*, 16 Oct 1929, accessed online via ProQuest Historical Newspapers *The New York Times* (1851–2007). The other observer was Roger W. Babson, who was predicting a crash. There was a connection between Fisher's faith in the economy's higher plateau and the fact that the alcohol prohibition he advocated (see [Chapter 1](#)) was then in force. He believed that greater sobriety was boosting worker productivity. Fisher's 1930 book *The Stock Market Crash – and After* (New York: Macmillan) included the chapter "The Dividends of Prohibition."

countries similarly slumped. Economists around the world, as puzzled as Fisher (though seldom as impoverished) by the events, sought to figure out what had happened. Could the downturn have been avoided, or was there something about the boom years that destined them to come to an end?

THE ROARING TWENTIES

Real gross domestic product in the United States grew more than 45 percent in the eight years between 1921 and 1929, rising to \$865.2 billion (in year-2000 dollars) from \$595.1 billion in the recession year 1921. The compound annual growth rate of per capita real GDP was a mighty 3.29 percent, compared to a century-long rate of 1.97 percent.² The boom was not evenly distributed across industries but was especially pronounced in the output of producers' goods. The 1929 volumes of pig iron and steel production nearly tripled the volumes of 1921. Construction activity and machine tools output both more than tripled. From September 1921 to its peak in September 1929, the total index of industrial production rose by 96.7 percent, more than double the rise of consumers' goods output. Between 1925 and 1929, the output of producers' goods rose 22 percent while the output of consumers' goods rose only 7 percent.³ Price levels meanwhile moved little: the wholesale price index in 1929 was only 1.5 percent below its 1922 level.

A cyclical downturn began to develop in 1927. The young Federal Reserve System, having begun operations in 1914, experimented with its powers. It pursued an expansionary policy to stabilize wholesale prices, keep interest rates low, and thereby extend the boom. Over the five years from June 1922 to June 1927, the M2 measure of the money stock (total deposits plus currency outside the banks) had expanded by 34 percent, or about 6.0 percent per annum. Now, over the eighteen months between June 1927 and December 1928, it grew by 10 percent, or about 6.7 percent per annum.⁴ Between July and September of 1927 the Federal Reserve Banks reduced their discount rate to 3.5 percent from 4 percent. The Fed expanded its holdings of

² Real GDP grew 4.79% per year, higher than the 3.32% rate over the entire twentieth century. Lawrence H. Officer and Samuel H. Williamson, "Annualized Growth Rate and Graphs of Various Historical Economic Series," *MeasuringWorth.Com*.

³ Index of Industrial Production from Federal Reserve Board Statistical Release G.17, Industrial Production and Capacity Utilization (not seasonally adjusted), http://www.federalreserve.gov/Releases/g17/table1_2.htm. All other figures from C. A. Phillips, T. F. McManus, and R. W. Nelson, *Banking and the Business Cycle: A Study of the Great Depression in the United States* (New York: Macmillan, 1937), pp. 123–7, 194.

⁴ Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics 1914–1941*, p. 34. Available online at <http://fraser.stlouisfed.org/publications/bms/>.

commercial bills and made open-market purchases of Treasuries.⁵ A few years later, Cornell University economist Harold L. Reed observed that “the greatly increased open market purchases of the Reserve banks in the first half of 1927, and the ensuing reductions in discount schedules [interest rates] from July of that year on,” had brought about an “extremely large” growth in bank loans and “record volume” of corporate security issues, thereby financing “a remarkable expansion of our capital equipment.”⁶

The stock market also responded to the expansion of credit, stock prices rising 50 percent during 1928 and another 27 percent from January to October 1929. The Fed became alarmed at the extraordinary run-up in stock prices and tightened monetary policy, hiking the discount rate (the interest rate at which it lent to banks) from 3.5 percent in early 1928 to 5 percent by early 1929.

The boom finally came to an end. The Fed’s production index peaked in June 1929 and declined thereafter.⁷ The National Bureau of Economic Research dates the end of the expansion to August 1929. The Bureau of Labor Statistics’ Index of Industrial Production began to decline after September. The stock market crashed in late October. Unlike the short sharp shock of the eighteen-month recession of 1920–1, and of crises in earlier decades, the sharp decline in real activity continued for four years, later to be known as the opening phase of the Great Depression. By 1933, real GDP had fallen to \$635.5 billion (again in year-2000 dollars), a decline of 26.5 percent from its 1929 peak.⁸ Industrial production had fallen 47 percent. Gross Private Domestic Investment plummeted from \$16.5 billion in 1929 to only \$1.3 billion in 1932.⁹ To Harold L. Reed, surveying the economy from the perspective of late 1932, the “remarkable expansion” of plant and equipment from 1927–8 still crowded the market, discouraging new investment: “Productive power was so geared up that, ever since the 1929 recession in the security markets, it has been difficult to find a satisfactory outlet for bank credit in plant improvement projects.”¹⁰

⁵ Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States, 1867–1960* (Princeton, NJ: Princeton University Press, 1963), p. 288.

⁶ Harold L. Reed, “Reserve Bank Policy and Economic Planning,” *American Economic Review* 23 (Supplement) (March 1933), p. 112.

⁷ Allan H. Meltzer, “Money and Monetary Policy: An Essay in Honor of Darryl Francis,” *Federal Reserve Bank of St. Louis Review* (July/August 2001), p. 28.

⁸ In the worst slump since the Great Depression, real GDP fell only 3.7% peak to trough from October 2007 to May 2009.

⁹ Gross Private Domestic Investment (GPDIA), U.S. Department of Commerce, Bureau of Economic Analysis. <http://research.stlouisfed.org/fred2/data/GPDIA.txt>.

¹⁰ Reed, “Reserve Bank Policy,” p. 112.

PRE-KEYNESIAN MACROECONOMICS

What explanations did contemporary economists have to offer for this boom and bust? Paul Krugman has suggested that they had nothing to say before John Maynard Keynes came to the rescue:

But classical economics offered neither explanations nor solutions for the Great Depression. By the middle of the 1930s, the challenges to orthodoxy could no longer be contained.¹¹

Krugman here uses “classical economics” in the idiosyncratic way that Keynes used it in his *General Theory*, to mean the main current of economic theory before Keynes’s 1936 work, rather than in the standard way to mean the main current of economics (exemplified by Adam Smith, David Ricardo, and John Stuart Mill) before the 1871 marginalist-subjectivist revolution. Keynes at least acknowledged that he was using nonstandard labels: “I have become accustomed, perhaps perpetrating a solecism, to include in ‘the classical school’ the *followers* of Ricardo, those, that is to say, who adopted and perfected the theory of the Ricardian economics, including (for example) J. S. Mill, Marshall, Edgeworth, and Prof. Pigou.”¹² Using standard labels, Mill was the only Ricardian or classical economist on Keynes’s list. The later three were all non-Ricardian and *neoclassical* because they accepted the marginalist subjective-value theory of price, with its twin focus on individual optimization and market equilibrium, over Ricardo’s labor-cost theory of price and focus on distributive shares. Keynes idiosyncratically used “the classical school” and “Ricardian economics” to designate any economics using the hypothesis that prices and wages will adjust, where free to do so, to clear markets and allow full employment of resources.

Contrary to Krugman, many leading pre-1936 economists did offer explanations for the boom and bust. Each explanation implied solutions in the sense of lessons for policy. Ludwig von Mises, building on the analysis of Knut Wicksell and the nineteenth century’s British Currency School, had sketched a monetary business cycle theory as early as 1912 in *The Theory of Money and Credit*, refining and extending it in the book’s 1924 second edition and in a 1928 monograph.¹³ F. A. Hayek began to

¹¹ Paul Krugman, “Who Was Milton Friedman?”

¹² John Maynard Keynes, *The General Theory of Employment Interest and Money*, ed. Elizabeth Johnson and Donald Moggridge, vol. VII in *The Collected Writings of John Maynard Keynes* (London: Macmillan, 1973), p. 3 n. 1.

¹³ Ludwig von Mises, *The Theory of Money and Credit* [1912; 2nd German ed. 1924; with additional essay added to 1953 American ed.], trans. H. E. Batson (Indianapolis: Liberty

develop a more elaborate version of Mises's theory a few years before the 1929 crash, emphasizing the behavior of the economy's structure of production over the course of the cycle. With the onset of the Depression, Mises, Hayek, and other "Austrian School" economists (most notably Fritz Machlup, Gottfried Haberler, and Lionel Robbins) applied their theory to the task of explaining the crisis.¹⁴ The Austrian theory was widely debated, as we will see later in this chapter. With the publication of his *Prices and Production* in 1931, Hayek's account of what had gone wrong (in a nutshell: loose monetary policy had kept interest rates too low and thereby distorted production into an unsustainably top-heavy structure) became the chief rival to Keynes's account (in a nutshell: loss of nerve by investors meant that investment spending failed to make up for too little consumption spending).¹⁵

Other pre-Keynesian monetary and business cycle theorists offered their own explanations, some of them overlapping the Mises-Hayek account in various degrees. Some of the leading names in the United Kingdom were Dennis H. Robertson, Ralph Hawtrey, and Arthur C. Pigou; in the United States there were Irving Fisher, Wesley Clair Mitchell, Jacob Viner, and John Maurice Clark.¹⁶ Keynes and his followers would find these explanations lacking in various respects, but it can't accurately be said that before Keynes's *General Theory* the leading economists offered nothing. Outside the Austrian camp, leading economists offered anti-Depression policy recommendations that anticipated those later associated with Keynes, in particular easier monetary policy and an increase in government spending financed by borrowing.¹⁷

Fund, 1981); Mises, "Monetary Stabilization and Cyclical Policy" [1928], trans. Bettina Bien Greaves, reprinted in Mises, *On the Manipulation of Money and Credit*, ed. Percy L. Greaves, Jr. (Dobbs Ferry, NY: Free Market Books, 1978).

¹⁴ Fritz Machlup, *The Stock Market, Credit and Capital Formation* [1931], trans. Vera C. Smith (London: William Hodge, 1940); Gottfried Haberler, "Money and the Business Cycle," in Quincy Wright, ed., *Gold and Monetary Stabilization* (Chicago: University of Chicago Press, 1932), pp. 43–74; Lionel Robbins, *The Great Depression* (London: Macmillan, 1934). Appearing slightly later (1937) but offering further empirical evidence for the applicability of the Austrian theory to the boom and bust was Phillips, McManus, and Nelson, *Banking and the Business Cycle*.

¹⁵ John Maynard Keynes, "The Great Slump of 1930" and "Economy: (i) Saving and Spending," in *Essays in Persuasion*, pp. 135–56.

¹⁶ On Fisher's theory see Scott Sumner, "Price-level Stability, Price Flexibility, and Fisher's Business Cycle Model," *Cato Journal* 9 (Winter 1990), pp. 719–27.

¹⁷ For a thorough account of the antidepression policy recommendations of mainstream economists between 1929 and 1936 see J. Ronnie Davis, *The New Economics and the Old Economists* (Ames: Iowa State University Press, 1971).

THE MISES-HAYEK THEORY OF THE BOOM-BUST CYCLE

In the *Theory of Money and Credit*, and in his 1928 monograph, Mises modernized a credit-cycle theory of boom and bust previously sketched by British economists in a mid-nineteenth-century debate over the Bank of England's role in business fluctuations. He added monetary dynamics drawn from the Swedish economist Knut Wicksell, and a capital-and-interest theory based on the earlier Austrian economist Eugen von Böhm-Bawerk. The result was a "monetary malinvestment theory" of the business cycle.

In Mises's theory, the boom period begins when the banking system arbitrarily expands the supply of loanable funds beyond the supply of voluntary savings, reducing the interest rate below its equilibrium value (Wicksell's "natural rate of interest"). Here "the banking system" that expands is either a central bank that is not tightly constrained by the gold standard, or a system of commercial banks acting in concert like (or following the lead of) such a central bank. Mises wrote that "the banks . . . intervene on the market in this case as 'suppliers' of additional credit, created by themselves, and they thus produce a lowering of the rate of interest, which falls below the level at which it would have been without their intervention."¹⁸

The low interest rate induces, and the expansion of credit finances, the undertaking of new investment projects:

The lowering of the rate of interest stimulates economic activity. Projects which would not have been thought "profitable" if the rate of interest had not been influenced by the manipulations of the banks, and which, therefore, would not have been undertaken, are nevertheless found "profitable" and can be initiated.¹⁹

The newly perceived profitability, however, vanishes when the interest rate returns to equilibrium. To the extent that workers and machines have been drawn into unsustainable activities, they will have to find new employments:

If . . . the banks decided to halt the expansion of credit in time to prevent the collapse of the currency and if a brake is thus put on the boom, it will quickly be seen that the false impression of "profitability" created by the credit expansion has led to unjustified investments.²⁰

¹⁸ Ludwig von Mises, "The Austrian Theory of the Trade Cycle" [1936], in *The Austrian Theory of the Trade Cycle and Other Essays*, compiled by Richard M. Ebeling (Auburn, AL: Mises Institute, 1996), p. 2.

¹⁹ *Ibid.*

²⁰ *Ibid.*, p. 3.

Alternatively, if nothing stops the expansion, the currency will collapse. The public will eventually react to rising inflation by abandoning the currency, resulting in a “crack-up” such as the German hyperinflation of the 1920s. Mises implied, though postwar experience does not bear this out, that an ongoing inflation at a steady percentage rate was an unsustainable knife-edge path.

Mises’s policy lesson was: to avoid economic downturns, avoid creating the credit booms that precede them. According to one story, perhaps apocryphal, an audience member asked Mises after a lecture: “Do you really advise that once a depression begins the central bankers should do nothing?” To which Mises replied: “Madam, my advice is that they should start doing nothing much sooner than that!” If a credit expansion has already been started, Mises’s advice was to stop it as soon as possible. The longer the boom, the bigger the bust:

The longer the period of credit expansion and the longer the banks delay in changing their policy, the worse will be the consequences of the malinvestments and of the inordinate speculation characterizing the boom; and as a result the longer will be the period of depression and the more uncertain the date of recovery and return to normal economic activity.²¹

Mises blamed unwarranted credit expansion on political pressures for cheap money that the central bank failed to resist. As an institutional reform to avoid the problem he favored *free banking*, a monetary system without a central bank, although he acknowledged that the spread of central banking throughout Europe in previous decades had made the choice between free banking and central banking one of those “questions that have long been regarded as closed.” Exemplified by Scotland, Sweden, Canada, Switzerland, and other countries in the periods before their central banks were created, free banking meant a system in which decentralized and competitive commercial banks issue the paper currency, tied down by a contractual obligation to redeem their notes for gold or silver coin.

Advocates of free banking argued that competition would prevent all the banks from colluding to expand in concert, and interbank redemption of excess notes or deposits would restrain any smaller set of banks from over-expanding. International redemption would restrain the system as a whole. In his later treatise *Human Action* Mises wrote along these lines:

Free banking is the only method for the prevention of the dangers inherent in credit expansion. It would, it is true, not hinder a slow credit expansion, kept

²¹ Ibid., pp. 5–6.

within very narrow limits, on the part of cautious banks which provide the public with all the information required about their financial status. But under free banking it would have been impossible for credit expansion with all its inevitable consequences to have developed into a regular – one is tempted to say normal – feature of the economic system. Only free banking would have rendered the market economy secure against crises and depressions.²²

Hayek, in a series of works from the mid-1920s through *The Pure Theory of Capital* (1941), added to Mises's theory a more detailed account of how an easy-money lowering of the interest rate prompts malinvestment during the boom, and how that malinvestment skews the economy's structure of production away from its sustainable equilibrium structure.²³ Hayek commented in 1932 that "what I tried to do in *Prices and Production*, and in certain earlier publications, was to show that monetary factors may bring about a kind of disequilibrium in the economic system."²⁴

The problem caused by the distortion of the interest rate is a mismatching of the plans of savers and investors. As Hayek sometimes put it, the distorted interest rate fails to equalize the supply with the demand for real capital. The artificially lowered interest rate no longer meshes the time-profile of output for which businesses are making their investment plans – to produce so much for the present and so much for various future periods – with the public's planned time-profile of saving and consumption across the same periods. Instead it skews investment too much toward the "higher stages" of production, meaning projects such as mineral extraction, heavy industry, and building construction that will yield consumable output predominantly in the distant future, leaving too little consumable output in the near future. As he summarized the problem:

[A]n expansion of credit via the Bank Rate mechanism [i.e. via the central bank lowering interest rates] will *not* "apportion the additional money between consumers and producers so as not to disturb the initial proportions," but will certainly favour the "higher" stages at the expense of the "lower."²⁵

The "misdirection of production" leads to "a consequent crisis." The mismatch between the entrepreneurs' planned investment profile and the

²² Ludwig von Mises, *Human Action*, 3rd ed. (Chicago: Henry Regnery, 1966), p. 443.

²³ On the core similarities and some peripheral differences between Mises's and Hayek's accounts of the cycle, see Roger W. Garrison, "Overconsumption and Forced Saving in the Mises-Hayek Theory of the Business Cycle," *History of Political Economy* 36 (Summer 2004), pp. 323–49.

²⁴ F. A. von Hayek, "Money and Capital: A Reply," *Economic Journal* 42 (June 1932), p. 238.

²⁵ *Ibid.*, p. 245.

consumers' planned savings and consumption profile is revealed in the bust. The bust occurs when investment projects that cannot be profitably completed – because the public does not voluntarily save enough to finance their completion at low interest rates – are finally recognized to be nonviable and are terminated. The crisis occurs because “it becomes obvious that it is not possible to wait as long as had at first seemed practicable for the product of the investment.”²⁶

Consistent with the Mises-Hayek account of the boom period, interest rates were relatively low in the United States during 1924–8 while Federal Reserve policy was bringing about an expansion in bank assets and an increase in new bond issues. The expansion in bank assets was made possible mostly by the Fed expanding bank reserves.²⁷ Interest yields on corporate bonds steadily declined from early 1923 to early 1928.²⁸

Economists during the 1920s who subscribed to the Austrian view, and who at the time viewed the U.S. boom as the offspring of overexpansive monetary policy, should have seen the boom as unsustainable and should have forecast that a bust was coming. And some did. The most explicit warning came from the Swedish economist Johan Akerman, who wrote on October 1, 1929:

American economic life is now about to enter upon the final phase of a boom period that began already in the middle of 1921 ... American monetary policy ... can hardly be said during these years to have favored the tranquil course of industrial expansion. Under direct or indirect monetary influences savings capital had been attracted to speculative investments, which are now beginning to prove unprofitable.²⁹

The Mises-Hayek theory was first and foremost a theory of the “upper turning point”: it aimed to explain why the cheap-credit boom must give way to bust.³⁰ Thus it offered an explanation of the 1929 downturn. And it

²⁶ Ibid., pp. 241, 247.

²⁷ Because of the two-sidedness of bank balance sheets, the size of the expansion of bank assets (lending and securities purchases) basically equaled the size of the expansion in bank liabilities. The latter in turn roughly equaled the expansion in the *M2* money stock minus any increase in metallic currency in circulation. About two-thirds of the *M2* increase during 1921–9 was traceable to an increase in bank reserves. The increase in bank reserves in turn was due mostly to the Federal Reserve's expansion of its own liabilities, with a smaller contribution from gold flows into the United States. The other one-third was due to an increase in the ratio of bank liabilities to reserves, which was mostly due to the Federal Reserve's reductions in required reserve ratios.

²⁸ Thomas E. Hall and J. David Ferguson, *The Great Depression: An International Disaster of Perverse Economic Policies* (Ann Arbor: University of Michigan Press, 1998), p. 7, fig. 1.3.

²⁹ Quoted by Phillips, McManus, and Nelson, *Banking and the Business Cycle*, p. 147.

³⁰ See Roger W. Garrison, “Overconsumption and Forced Saving.”

suggested that the severity of the downturn would be proportional to the unusual length of the boom. Hayek had less to say about the character of the post-bust recession, because in his theory the recession was a period that followed the market's normal tendency toward equilibrium. In the Austrian framework the mistakes made during the boom are the difficult thing to explain. The recession is a corrective period in which the needed readjustments take place. The firms that made nonviable investments must wind them down, perhaps go bankrupt, laying off workers and idling machines, leading to above-normal unemployment and unused capacity until those workers and machines are reabsorbed into more sustainable employments elsewhere. The more rapidly the economy adjusts wages and prices and reallocates resources, the shorter the recession will be.

Keynes objected to the self-equilibrating character of the Mises-Hayek recession scenario, the idea that the economy returns on its own to a normal level of activity. For him the hypothesis that the market economy will right itself was the common flaw in all "orthodox" theorizing. Thus he wrote in the preface to the 1936 German edition of *The General Theory*, once again using "classical" to designate theory built on the idea that markets tend toward a full-employment equilibrium, that prior to his own theory,

The most important unorthodox discussion on theoretical lines was that of Wicksell.... But his followers were chiefly Swedes and Austrians, the latter of whom combined his ideas with specifically Austrian theory so as to bring them in effect, back again towards the classical tradition.³¹

HAYEK VERSUS KEYNES'S *TREATISE*

Harvard economist Alvin Hansen, reviewing Hayek's *Prices and Production* (1931), summarized the contrast between its message and the message of Keynes's *A Treatise on Money* (1930):

Hayek directs all his attack against monetary inflation (forced saving) which, in his view, is the source of most, if not all, of our difficulty. The implication is that monetary deflation could be prevented were monetary inflation definitely conquered. This in sharp contrast to Keynes, in whose mind measures to prevent monetary deflation are always upper-most.³²

³¹ John Maynard Keynes, *The General Theory of Employment Interest and Money*, ed. Elizabeth Johnson and Donald Moggridge, vol. VII in *The Collected Writings of John Maynard Keynes* (London: Macmillan, 1973), p. xxxiii. We discuss Wicksell's theory of a "cumulative process" away from equilibrium later.

³² Alvin H. Hansen, untitled review of *Prices and Production* by Friedrich A. Hayek, *American Economic Review* 23 (June 1933), p. 333. Using the terminology of the times, Hansen wrote

Monetary expansion is the source of difficulty, in Hayek's view, because it distorts the interest rate. "Forced saving" here means the diversion of economic activity toward more investment and less present consumption than the public prefers, which occurs because the monetary expansion goes disproportionately into new business loans. Monetary *contraction* became a serious problem beginning in 1930, as we will discuss later in this chapter.

THE HAYEKIAN TRIANGLE

Hayek's theory connects today's investment to the production of tomorrow's consumption goods. Consumable outputs emerge after a series of "stages" of production that turn raw material into finished output. When an economy is in *intertemporal equilibrium*, the planned and actual real quantity of emerging consumption goods in each period equals the real quantity demanded at correctly anticipated prices and interest rates. Hayek pictured the economy's intertemporal "structure of production" using a triangular diagram borrowed from the nineteenth-century British economist William Stanley Jevons (1835–82). Hayek suggested that it be called the "Jevonian investment figure." The underlying concept of time-consuming or "roundabout" capitalistic production had been developed by the nineteenth-century Austrian economists Carl Menger and Eugen von Böhm-Bawerk.

Menger distinguished between ready consumption goods that are directly valued for the enjoyments that they offer here and now, and "higher-order" capital goods that are indirectly valued for their anticipated contributions to the production of *future* consumption goods.³³ Böhm-Bawerk wrote that "capital is, by its nature, composed of a mass of intermediate products, and the common goal of all these products is to ripen into consumption goods or means of enjoyment."³⁴ Jevons provide the triangular depiction of the

of "monetary inflation" and "monetary deflation" where today we say "monetary expansion" and "monetary contraction." For better or worse, current usage reserves the terms "inflation" and "deflation" for movements in the price level.

³³ Carl Menger, *Principles of Economics* [1871] (New York: New York University Press, 1976), ch. 3; available online at mises.org/Books/Mengerprinciples.pdf. Capital goods are also known as "intermediate goods" or "means of production" or "nonlabor inputs." These are the same goods that, according to Mises (see [Chapter 2](#)), a socialist economy would be unable to allocate appropriately.

³⁴ Eugen von Böhm-Bawerk, *The Positive Theory of Capital* [1889], trans. William Smart (London: Macmillan, 1891), p. 106, available online at files.libertyfund.org/files/283/0183_Bk.pdf.

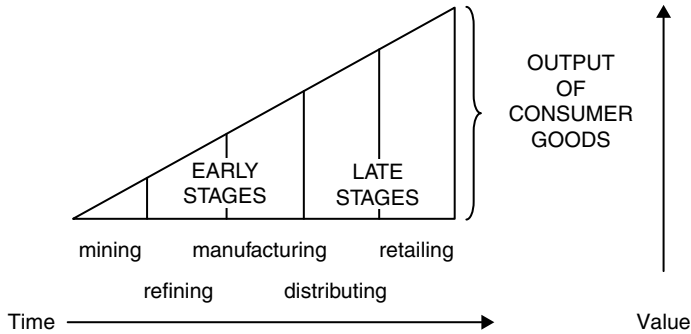


Figure 3.1. Stylized Structure of Production.

Source: Roger Garrison (2001).

“ripening” process.³⁵ The Jevons-Hayek triangle shows both a temporal dimension to capital and a value dimension.

Hayek drew the triangle with earlier stages (Menger’s “higher orders”) above the later stages. In Figure 3.1 the triangle is rotated 90 degrees to show the value of goods-in-process growing over prospective time (that is, as we look ahead), going from left to right. The horizontal axis measures prospective time from the application of inputs to the emergence of the resulting consumable output. The vertical axis measures the dollar value of the goods-in-progress at each stage. Value grows as additional inputs bring the goods closer to readiness for consumption. At an early stage of production we might locate (for example) cotton seeds and the labor and machine services used to plant them. At a later stage would come bolts of cotton denim and the labor and machine services used to cut pieces out of them. At the last stage before consumption would be ready-to-wear blue jeans in a cubbyhole at the Gap and the services of the gum-chewing salesperson waiting to sell them.

The *length* of an economy’s equilibrium triangle – the time-duration of the periods between the applications of inputs and consumption of resulting final outputs – depends on the public’s impatience or “time-preference.” How many units of future consumption will be just enough to get people to willingly sacrifice one unit of present consumption? As a benchmark case of *sustainable* lengthening of the triangle, against which he would contrast the *unsustainable* lengthening that characterizes the business cycle boom, Hayek

³⁵ William Stanley Jevons, *The Theory of Political Economy*, 3rd ed. [1st ed., 1871] (London: Macmillan, 1888), ch. 7. Available online at www.econlib.org/library/YPDBooks/Jevons/jvnPE.html.

invited his readers to consider a shift toward less impatience, generating a greater volume of voluntary saving by the public at any given rate of return to saving. In supply-and-demand terms, increased saving shifts the supply curve for loanable funds to the right and thereby lowers the interest rate.

A lower interest rate means that anticipated future revenues from investment are discounted less heavily relative to present outlays. Put another way, it signals that borrowing to finance lengthy investment projects has become less costly relative to the projects' anticipated future revenues. The economy moves toward a mix of greater investment in the early stages of roundabout production relative to present consumption – a longer triangle – as investors embark on longer (more “roundabout”) investment projects. Those projects had been technically available all along, but looked unprofitable (present discounted values of future payoffs were too low) at the previous higher interest rate. A simple example of a more roundabout investment project is Böhm-Bawerk's example of waiting longer to cut down growing trees for lumber. Suppose that a tree's proportional growth rate is greatest when it is young, and slows as it matures. When the interest rate is 10 percent per year, it pays (maximizes present value) to harvest any tree that has reached the age where next year's growth will slow to 9.99 percent or less. At a 5 percent interest rate, it pays to leave standing any tree still growing at 9.99 percent, and not cut it down until later when its growth rate has slowed to 5 percent.

WHY BUST FOLLOWS BOOM

In the Austrian theory, the problem of the unsustainable boom arises when monetary expansion shifts the supply curve for loanable funds to the right, lowering the interest rate as though there were actually an increased willingness to save. Investors embark on more roundabout investment as in the previous case of reduced impatience. In this case, however, the lower interest rate encourages *more* consumption because unchanged impatience confronts a lower cost of consuming (consumer credit is cheaper; the reward to saving is diminished). With both consumption and roundabout investment rising, a boom ensues. By drawing on the pool of unemployed workers and machines, adding overtime shifts, drawing down inventories, and deferring maintenance, the economy produces a combination of consumption and investment greater than can be sustained. Hidden within the boom are the seeds of its own destruction, a tug-of-war for resources between longer processes of production (investment for consumption in the relatively distant future) and shorter processes (consumption today and in the near future). In Fritz Machlup's words:

In its original formulation the Mises-Hayek theory started out from a state of full employment and on this basis it was possible to argue that an investment inflation will draw productive factors away from the stages of production near to the consumers' goods end, and that this situation is not tenable in the long run and is bound to lead to a reaction.³⁶

The scarcity of genuine savings to support the more roundabout investment, as Hayek later put it, eventually creates "the necessity of having to abandon investments because it has been attempted to make the capital equipment more 'capitalistic' than is compatible with the size of that part of the people's income which they want to take out in the form of consumers' goods."³⁷ The crisis arrives when investors realize that the inappropriately capital-intensive projects they have begun cannot all be completed with the available savings.

In a review of Hayek's *Prices and Production*, Alvin Hansen summarized its business cycle theory as follows:

In Hayek's view the essence of a boom is an elongation of the capitalistic process of production brought about by forced saving imposed upon the community by the action of banks. A lengthening of the production process thus occasioned cannot possibly, in his view, be permanently maintained, but must necessarily be followed by a shrinkage in the structure of production. Such a shrinkage, it is argued, is the very essence of depression.³⁸

A stock market run-up and an overly ambitious set of investment projects, in the Austrian view, were symptoms of a period of artificially cheap credit. The inevitable return of interest rates to equilibrium, ending the period of cheap credit, implied the bursting of the asset-price "bubble" and the bankruptcy of investment projects whose profitability depended on the continuation of cheap credit. Lionel Robbins, in a 1932 letter to the *Economist*, wrote that "although the causes of the present depression are various and complex, there is considerable reason to believe that the main initiatory cause was the inflationary boom in America and elsewhere which preceded it."³⁹

In Hayek's scenario, to summarize, artificially cheap credit creates a false boom, luring investment into unsustainable projects. The unsustainable

³⁶ Machlup, *Stock Market*, pp. 194–5.

³⁷ F. A. Hayek, "A Comment" [on Nicholas Kaldor, "Professor Hayek and the Concertina-Effect"], *Economica* New Series 9 (November 1942), p. 384.

³⁸ Hansen, Review, p. 332.

³⁹ Quoted by Masazumi Wakatabe, "Was the Great Depression the Watershed of Macroeconomics? The Impact of the Great Depression on Economic Thought Reconsidered," Working paper (2005), p. 21.

boom gives way to a crisis, followed by liquidation and restructuring during the recession. The boom-bust cycle is most severe in the industries most sensitive to movements in the interest rate, namely producers' goods industries and construction. The business bankruptcies that accompany the downturn reveal a cluster of mistaken investment decisions. The clustering of errors is explained by entrepreneurs' common response to a signal that is normally trustworthy, a movement in the interest rate, but which in this case has been distorted by monetary expansion. The false interest rate leads the economy to "bite off" more than it can "chew."

This scenario has sometimes been characterized as a "hangover" theory of recession: a recession follows the seemingly prosperous times fueled by excessive monetary expansion, just as a hangover follows a seemingly great party fueled by excessive drinking. The metaphor became so popular in explanations for the bust of the American housing finance industry in 2008 that even President George W. Bush reportedly remarked: "Wall Street got drunk ... and now it's got a hangover."⁴⁰ In explaining the boom-bust cycle of the 1920s and '30s the Austrians emphasized the role of the central bank in spiking the financial punchbowl by expanding the supply of credit and lowering interest rates.

Hayek's account of the collapse of 1929–33 stands in contrast to the later scenarios of John Maynard Keynes and Milton Friedman. In the Hayekian view, the seeds of the bust were sown by the Federal Reserve during the Roaring Twenties. In Keynes's view, by contrast, Fed policy before 1929 policy was fine. In *A Treatise on Money* (1930) Keynes wrote: "The successful management of the dollar by the Federal Reserve Board from 1923 to 1928 was a triumph ... for the view that currency management is feasible."⁴¹ The depression began only because investment demand collapsed due to pessimistic "animal spirits," a loss of nerve by investors. For Milton Friedman as well, pre-1929 policy was fine. The economic collapse came only because the Fed allowed the money stock to collapse after 1929.

HAYEK'S POLICY PRESCRIPTION

Why did the Federal Reserve pursue the monetary expansion that distorted the structure of production in the 1920s? In Hayek's view, seconded

⁴⁰ "'Wall Street Got Drunk,' Bush Says at Private Event," *Reuters.com* (23 July 2008), available online at <http://uk.reuters.com/article/2008/07/23/uk-usa-bush-wallstreet-idUKN2330503720080723>.

⁴¹ Phillips, McManus, and Nelson, *Banking and the Business Cycle*, p. 179, quoting Keynes, *Treatise on Money*, vol. II, pp. 258–9.

by Phillips, McManus and Nelson, the Fed was conducting an experiment in price-level stabilization.⁴² An alternative explanation suggests that the Fed was trying to keep interest rates low, thereby not attracting gold from abroad, to aid the Bank of England's attempt to get back on the gold standard at the pre-War parity. This is not inconsistent with price-level stabilization, since keeping U.S. prices from falling would also avoid attracting gold inflows. In a preface to the 1933 English translation of *Monetary Theory and the Trade Cycle*, citing a series of six articles he had published between 1925 and 1932, Hayek noted that "the critique of the programme of the 'stabilizers,' which is in many ways the central theme of this book, has now occupied me for many years."⁴³

The Mises-Hayek business cycle theory led Hayek to the conclusion that intertemporal coordination is best maintained by constancy of nominal spending or "the total money stream." In terms of the variables of Irving Fisher's equation of exchange ($MV=PQ$), discussed at greater length in [Chapter 11](#), nominal spending is the money stock times its velocity of circulation, MV . In *Prices and Production* Hayek recommended that to keep MV constant the money stock M should vary to offset changes in the velocity of money V , but should be constant in the absence of changes in V . The price level P should be allowed to fall with growth in real income Q .⁴⁴ As Hansen summarized the prescription:

The supply of money should, therefore, be kept constant, except for such increases or decreases as may be necessary to offset ... changes in the velocity of circulation ... Hayek wants, therefore, not a *constant* money supply, but a neutral money supply – one which will insure that there will be no *monetary* causes of price changes.⁴⁵

Hayek noted that a hypothetical global monetary system in which the money stock consisted exclusively of gold coins (without bank-issued money) would poorly approximate his norm because the stock of monetary gold would not adjust *promptly* to offset changes in velocity. Gold accumulated slowly from additional mining following a rise in the relative price of gold. Nor would a system with bank-issued money approximate it well,

⁴² See Phillips, McManus, and Nelson, *Banking and the Business Cycle*, p. 176.

⁴³ Hayek, *Monetary Theory and the Trade Cycle* (London: Jonathan Cape, 1933), pp. 16–17.

⁴⁴ For secondary accounts of Hayek's monetary policy views and their evolution see George Selgin, "Hayek versus Keynes on How the Price Level Ought to Behave," *History of Political Economy* 31 (1999), pp. 699–722; and Lawrence H. White, "Hayek's Monetary Theory and Policy: A Critical Reconstruction," *Journal of Money, Credit and Banking* 31 (1999), pp. 109–20.

⁴⁵ Hansen, Review, p. 332.

he thought, unless a central bank existed to promptly offset any changes in the volume of bank-issued money not warranted by velocity changes. Thus Hayek was more ambivalent than Mises regarding the merits of the gold standard and free banking.⁴⁶

Hayek criticized the Federal Reserve's policy of stabilizing the price level during 1922–9 because it required the Fed to inject money M in order to offset the price-reducing effects of productivity improvements that were increasing real output Q . The Fed's injections distorted the interest rate away from its equilibrium value, leading to savings-investment discoordination. As Phillips, McManus and Nelson summarized the indictment:

The special character of the depression is traced to the hyper-elasticity of the Federal Reserve System, and to the operation of that system as exemplified in the "managed currency" experiment of the Federal Reserve Board, working in opposition to what D. H. Robertson labels "the over-mastering tendency of prices to fall" after a war financed by inflationary measures. By virtue of that experiment, the Board succeeded in holding up the price level for a surprising length of time, but in so doing unwittingly aided in producing the boom and its consequent depression. The depression, in other words, was the price paid for the experimentation with currency management by the Federal Reserve Board during the period when the dislocations caused by war had not as yet been corrected and when the post-War deflation of prices had not been completed.⁴⁷

... [T]he futility of price level stabilization as a goal of credit policy is evidenced by the fact that the end-result of what was probably the greatest price-stabilization experiment in history proved to be, simply, the greatest and worst depression.⁴⁸

IN A GROWING ECONOMY, PRICES SHOULD FALL

As noted, Hayek had been criticizing price-level stabilization policy for several years before the 1929 crash. In *Monetary Theory and the Trade Cycle* he spelled out the problem in theoretical terms:

The rate of interest at which, in an expanding economy, the amount of new money entering circulation is just sufficient to keep the price-level stable, is

⁴⁶ Lawrence H. White, "Why Didn't Hayek Favor Laissez Faire in Banking?" *History of Political Economy* 31 (Winter 1999), pp. 753–69.

⁴⁷ Phillips, McManus, and Nelson, *Banking and the Business Cycle*, pp. 5–6, 176. The U.S. Wholesale Price Index (WPI), even after dropping a remarkable 37% between 1920 and 1922, remained 30% above its average for 1914–16. WPI data from Allan H. Meltzer, *A History of the Federal Reserve*, vol. 1, 1913–1951 (Chicago: University of Chicago Press, 2003), p. 111, Table 3.6.

⁴⁸ Phillips, McManus, and Nelson, *Banking and the Business Cycle*, p. 176.

always lower than the rate which would keep the amount of available loan-capital equal to the amount simultaneously saved by the public: and thus, despite the stability of the price-level, it makes possible a development leading away from the equilibrium position.

Because monetary expansion adds to the available supply of loanable funds ("available loan-capital"), it reduces the interest rate below the rate that would otherwise prevail.

Such a development described the 1920s, in Hayek's view. The Federal Reserve System had inadvertently fostered the unsustainable boom of the 1920s by injecting money to stabilize the price level, thereby padding the supply of credit or loanable funds and so distorting the interest rate. Hayek summarized what had happened in his 1932 essay "The Fate of the Gold Standard":

Instead of prices being allowed to fall slowly, to the full extent that would have been possible without inflicting damage on production, such volumes of additional credit were pumped into circulation that the level of prices was roughly stabilized.... Whether such inflation [i.e., monetary expansion] merely serves to keep prices stable, or whether it leads to an increase in prices, makes little difference. Experience has now confirmed what theory was already aware of; that such inflation [i.e., monetary expansion] can also lead to production being misdirected to such an extent that, in the end, a breakdown in the form of a crisis becomes inevitable.⁴⁹

EUGEN VON BÖHM-BAWERK'S THEORY OF INTEREST

Hayek's conception of the importance of allowing investment to be guided by "the rate of interest which equilibrates the supply of real savings and the demand for capital" was built, following Mises, on the capital-and-interest theory of the earlier Austrian economist Eugen von Böhm-Bawerk, as further developed by the Swedish economist Knut Wicksell.

Böhm-Bawerk sought to explain the fact that people pay a premium for present resources (goods or funds available now) in exchange for future resources (claims to good or funds to be made available at a later dates). Alternatively put, future goods are discounted, in proportion to the number of years one must wait to have them. The equilibrium interest rate, in Böhm-Bawerk's theory, is determined by the interaction of savers' time-preferences with the investors' anticipated returns from time-consuming production projects. With additional resources provided by savers, investors can extend

⁴⁹ F. A. Hayek, "The Fate of the Gold Standard," in *Money, Capital, and Fluctuations: Early Essays*, ed. Roy McCloughry (Chicago: University of Chicago Press, 1984), p. 129.

the length of a production project by paying workers for more months. The equilibrium interest rate (call it i) coordinates saving and investment plans: it is just high enough to persuade savers to lend the last dollar lent (in return for $1 + i$ future dollars), and just low enough for investors to repay the last dollar borrowed with the return ($1 + i$ future dollars) from the enabled extension of the period of production.⁵⁰

MISES, WICKSELL, AND THE BRITISH "CURRENCY SCHOOL"

Knut Wicksell revised and restated Böhm-Bawerk's capital-and-interest theory with greater clarity.⁵¹ He importantly distinguished the *natural rate* of interest, the equilibrium rate as determined by real saving and investment in his revised Böhm-Bawerkian theory, from the *market rate* of interest which is proximately, and somewhat arbitrarily, determined by the banking system. If the banking system (again, a central bank or all the commercial banks acting in concert) pushes the market rate below the natural rate, the quantity of bank loans demanded by investors swells and exceeds the available pool of savings. The bankers "themselves create the money required" to expand loans.⁵² The faster monetary expansion raises the rate of inflation. Higher inflation means that the *real* market loan rate of interest has fallen even further (where the real rate is the nominal interest rate minus the inflation rate), stimulating a further increase in the quantity of loans demanded. A *cumulative process* thus leads the monetary system away from equilibrium toward ever-greater monetary expansion and price inflation. In a "pure system of credit" without any concern for gold reserves, the expansion proceeds without limit: the quantity of money explodes. Precisely to avoid a Wicksellian cumulative expansion, the "Taylor Rule" for monetary policy today calls for the central bank to *raise* the real interest rate when the inflation rate rises, by raising its nominal interest rate target more than the increase in the inflation rate.

In a system based on gold redeemability, the cumulative process is ultimately limited by reserve ratios reaching the lowest limit the banking

⁵⁰ Mises accepted this theory in 1912 but had backed away from it by 1924 and by the time of writing *Human Action* (1949) defended a pure time-preference theory of interest that explained interest-rate determination without reference to the superior physical productivity of well-chosen more time-consuming processes.

⁵¹ For an overview of Wicksell's thought see Carl G. Uhr, *Economic Doctrines of Knut Wicksell* (Berkeley: University of California Press, 1960).

⁵² Knut Wicksell, "The Influence of the Rate of Interest on Prices," *Economic Journal* 17 (June 1907), p. 214.

system will allow. As Mises later suggested when he referred to the “attempt of Wicksell (1898) to rehabilitate the Currency School,”⁵³ the collision of Wicksell’s cumulative process with the limit imposed by finite gold reserves yielded a restatement of the business cycle theory that had been sketched earlier in the nineteenth century by British economists critical of the Bank of England for overexpansion, members of the Free Banking School and some members of the Currency School.

Like the economists of the Free Banking School, Mises argued that only a central bank has the power to significantly overissue. Decentralized banks lack the power to overissue because they are constrained by rapid reserve losses to rival banks. Hayek, following the Currency School writer Thomas Joplin rather than Mises on this point, thought a scenario of in-concert overexpansion by decentralized competing banks was a serious possibility: when demand for loans increases, banks will gladly expand their liabilities to loan more money at the existing loan interest rate. The Joplin-Hayek scenario is not well founded, however. It supposes that banks fail to raise their loan rates in the face of increased demand for loans, which doesn’t make sense given that for any individual bank making additional loans is costly even when the bank funds the loan by creating deposit claims on itself. The bank faces a rising cost of expanding because a larger volume of deposit liabilities is a bigger threat to its given reserves.⁵⁴

The critics of the Bank of England charged that the Bank had at times overexpanded its lending, foolishly creating the money to lend by issuing more of its own liabilities even when it had no additional reserves, in the process lowering the interest rate and fueling a business boom, until dwindling gold reserves eventually forced it to reverse course. The reversal meant a credit crunch and the collapse of the cheap-credit boom. As Mises noted, “The English ‘Currency School’ has already tried to explain the boom by the extension of credit resulting from the issue of bank notes without metallic backing.”⁵⁵

Mises extended the older theories in two ways. First, where most of the earlier British writers had focused on overexpansion of credit funded by the issue of banknotes, he noted that “the expansion of credit can result” just as well “from the opening of excessive current accounts,” that is, the creation of checkable deposits. Second, where the earlier analysis was “restricted to the case where credit is expanded in only one country” on an international

⁵³ Mises, “Austrian Theory of the Trade Cycle,” p. 3.

⁵⁴ For details see White, “Why Didn’t Hayek Favor *Laissez Faire* in Banking?”

⁵⁵ Mises, “Austrian Theory of the Trade Cycle,” p. 1.

gold standard, so that the expansion is eventually limited by outflows of gold to other countries, he sought to show that even a worldwide expansion (assumed to be in-concert for the sake of argument) could not go on indefinitely but must end in a crisis.⁵⁶ With some modification his analysis of the worldwide case may also be applied to a country that is not on an international standard but has its own irredeemable fiat currency. Mises built on Wicksell's natural-rate and cumulative process ideas: concerted central bank credit expansion could set off the cumulative process by lowering the market interest below the natural rate, but the credit expansion would need to accelerate to outrun market forces restoring the natural rate.⁵⁷ Uninterrupted acceleration would lead to a hyperinflation; any interruption would trigger the crisis.

THE CURRENCY, FREE BANKING, AND BANKING SCHOOL

The Currency and Free Banking Schools were groups of British monetary economists who clashed in the period 1820–50 over the causes of and remedies for business cycles.⁵⁸ A third group, the Banking School, joined the debate around 1844. The legislative landmark of the period was Prime Minister Robert Peel's Bank Charter Act of 1844, which imposed on the Bank of England the sort of policy rule that the Currency School was advocating.

The Currency School was led by Samuel Jones Loyd (later to become Lord Overstone), Robert Torrens, and John R. McCulloch. They held that both the Bank of England (at that time a nascent central bank with a monopoly of note-issue in London) and the English country banks (commercial banks outside London, typically small) had the power to overissue banknotes, that is, temporarily expand their liabilities and loans more than was consistent with equilibrium. In their view cyclical booms were due to overissues either by the Bank of England or (in most cases) by the country banks. The over-expansion of the money supply would drive prices up and thereby drive gold out of the country, a process known as the "price-specie-flow mechanism" (where "specie" means coined gold or silver). The bust occurred

⁵⁶ Ibid., pp. 1–2.

⁵⁷ For an interesting discussion of where Mises adopted and where he departed from Wicksell's analysis, see Riccardo Bellofiore, "Between Wicksell and Hayek: Mises' Theory of Money and Credit Revisited," *American Journal of Economics and Sociology* 57 (October 1998), pp. 531–78.

⁵⁸ This section draws on Lawrence H. White, *Free Banking in Britain*, 2nd ed. (London: Institute of Economic Affairs, 1995), ch. 5.

when the Bank of England was forced to stop expanding and reverse course to stop its loss of gold reserves. As a remedy the Currency School proposed a strict monopoly of note-issue, taking the right of issue away from country banks, and the imposition of a rule on the one remaining issuer (either the Bank of England or a new government-owned bank). The rule, known as the Currency Principle, called for the national stock of banknotes to shrink one-for-one with gold outflows (and expand with gold inflows). The price-specie-flow mechanism would then promptly correct the “mixed” (specie and banknotes) money stock, making it behave in the self-regulating manner of a pure gold coin system.

The Free Banking School, led by banker James William Gilbart and Member of Parliament Henry Stuart Parnell, had a similar monetary overexpansion theory of the business cycle, except that they put all the blame for overissues on the Bank of England. They argued persuasively that a competitive country bank, facing reserve losses to surrounding banks through the clearing system should it expand more than they do, is too tightly constrained to expand significantly on its own without additional reserves. The Bank of England’s excess notes, by contrast, don’t promptly come back for redemption but end up lodged in the reserves of the country banks and thereby fuel a systemwide overexpansion. Because they held that only a monopoly bank can significantly overissue, while competitive banks cannot, the Free Banking School proposed to replace the Bank of England’s monopoly with a system of competitive note-issue (“free banking”) in London. Mises was closer to the Free Banking School on the source of the monetary overexpansion, whereas Hayek accepted the Currency School position that overexpansion could come either from the central bank or from the commercial banks.

The Banking School, led by Thomas Tooke and John Fullarton, did not have a monetary theory of the business cycle. They held that no bank can significantly overissue, not even the Bank of England, so long as its notes were redeemable for gold. One of their (faulty) rationales for believing that the banking system would not overissue, the “real bills doctrine,” persisted in economic thought and indeed became the doctrine of Federal Reserve officials who thought that the Fed was not overexpanding in the 1920s (nor under-expanding in the early 1930s). Its second (equally faulty) rationale was Fullarton’s “law of the reflux,” which proposed that any excess notes, even the notes of the Bank of England, will leave the circulation through loan repayments before they are spent on anything else. We will discuss the real bills doctrine in more detail later in this chapter. With monetary disturbances ruled out, the Banking School believed that business cycles were

nonmonetary in origin, caused either by real shocks like harvest failures or to unexplained waves of speculation. They thought that the institutional status quo was suitable, and they had no remedy to propose for business cycles other than greater prudence by bankers.

CRITICISMS OF HAYEK'S THEORY

Hayek's theory of the business cycle was soon criticized by Keynes, Piero Sraffa of Cambridge, Nicholas Kaldor of Hayek's home institution the London School of Economics (Kaldor later moved to Cambridge), and others. Hayek, Fritz Machlup of Vienna (who moved to the University of Buffalo in 1935), and other Austrians came to the theory's defense. Kaldor later described at length, from his own perspective as a leading critic, how the initially positive reception of Hayek's work had given way to increasing skepticism:

Professor Hayek first fascinated the academic world of economists by a new theory of industrial fluctuations which in theoretical conception, and perhaps even more in its practical implications, was diametrically opposed to the current trend of monetary thought.... It suggested those "deep-seated underlying maladjustments" in the structure of capitalist production, which may have been ultimately caused by, but which could not be adequately described in terms of, those purely monetary processes with which most of the then current speculation was concerned. In comparison with Professor Hayek's "triangles," "distorted price-margins," and unduly-elongated production periods, the prevailing concern with price-levels, and with the banks doing this or that, must have appeared facile and superficial.

This was the first impact. On second thoughts the theory was by no means so intellectually satisfying as it appeared at first. There were admitted gaps here and there in the first published account which was merely intended as rudimentary [here Kaldor cited *Prices and Production*], and when one attempted to fill these gaps, they became larger, instead of smaller, and new and unsuspected gaps appeared – until one was driven to the conclusion that the basic hypothesis of the theory, that scarcity of capital causes crises, must be wrong. These "second thoughts" produced a remarkable crop of critics of *Prices and Production* in the pages of English and American journals the number of which could rarely have been equalled in the economic controversies of the past.⁵⁹

As Kaldor elsewhere noted, the criticisms were chiefly of two sorts: (1) arguments to the effect that lengthening and shortening of the structure of production could not account for the variation in aggregate output and

⁵⁹ Nicholas Kaldor, "Professor Hayek and the Concertina-Effect," *Economica* (New Series) 9 (November 1942), p. 359.

employment over the cycle; and (2) arguments rejecting the meaningfulness of the Jevons-Böhm-Bawerk-Wicksell capital theory and its idea of shorter or longer production periods, and by implication its usefulness in explaining the business cycle.⁶⁰

Keynes fired the opening shot against Hayek's *Prices and Production* from an unusual place. In the middle of a reply to Hayek's critical review of Keynes's *Treatise on Money*, Keynes suddenly turned his attention to Hayek's own book and declared:

The book, as it stands, seems to me to be one of the most frightful muddles I have ever read, with scarcely a sound proposition in it beginning with page 45. . . . It is an extraordinary example of how, starting with a mistake, a remorseless logician can end up in Bedlam.⁶¹

Keynes's colleague at Cambridge, Arthur C. Pigou, was appalled by Keynes's unmannerly behavior. He described the exchange in the following terms in 1935:

The author's answer was, not to rebut the criticisms, but to attack with violence another book, which the critic had himself written . . . ! Body-line bowling! The method of the duello!⁶²

In his rejoinder, Hayek objected that Keynes was throwing up a smoke-screen, dodging Hayek's criticisms of the *Treatise*:

Instead of devoting his answer mainly to clearing up the ambiguities which I have indicated carefully and in detail, and the existence of which he cannot deny, he replies chiefly by a sweeping accusation of confusion, not in my critical article, but in another work. . . . I cannot believe that Mr. Keynes wishes to give the impression that he is trying to distract the attention of the reader from the objections which have been raised against his analysis by abusing his opponent.⁶³

A few months later in the *Economic Journal*, an academic quarterly that Keynes edited, Keynes's junior colleague Piero Sraffa reviewed *Prices and*

⁶⁰ Nicholas Kaldor, "Capital Intensity and the Trade Cycle," *Economica* (New Series) 6 (February 1939), p. 40.

⁶¹ J. M. Keynes, "The Pure Theory of Money. A Reply to Dr. Hayek," *Economica* 34 (November 1931), pp. 394. Bedlam was a London insane asylum.

⁶² Quoted in Bruce Caldwell, "Introduction," in F. A. Hayek, *Contra Keynes and Cambridge* (*The Collected Works of F. A. Hayek*, vol. 9), ed. B. Caldwell (Chicago: University of Chicago Press, 1995), p. 28. "Body-line bowling" was an unsportsmanlike tactic (soon banned) that had notoriously been used by the English cricket team in its 1932–3 Ashes Cup tour of Australia. It was the equivalent of repeatedly throwing beanballs in baseball. *Duello* is Italian for "duel".

⁶³ F. A. von Hayek, "A Rejoinder to Mr. Keynes," *Economica* 34 (November 1931), p. 398.

Production scathingly and at length. In Hayek's capital theory, Sraffa wrote, "a maze of contradictions makes the reader so completely dizzy, that when he reaches the discussion of money he may out of despair be prepared to believe anything." Regarding the book's discussion of money, "it is clear that a methodical criticism could not leave a brick standing in the logical structure built up by Dr. Hayek." Sraffa argued that Hayek's search for a monetary policy that would not affect relative prices ("neutral money") was in vain. Sraffa took Hayek to be seeking a monetary policy that would replicate the properties of a barter economy, which was impossible because in a money economy contracts were fixed in money terms, not in commodity terms.⁶⁴ But here Sraffa mistook Hayek's goal, which was not to replicate *all* the properties of a barter economy, but simply to find a monetary policy that would not drive a wedge between savings and investment. Hayek restated his theory in a reply to Sraffa.⁶⁵

To answer his Keynesian critics, and to adapt his theory to the conditions of the Great Depression, Hayek in 1939 published a new essay, "Profits, Interest, and Investment," in a book by the same title.⁶⁶ There he tried to spell out a different mechanism – the "Ricardo Effect" – that would generate an Austrian-type business cycle without relying on his earlier assumptions of a full-employment starting point, an initial impulse from a monetary disturbance, and misdirection of investment by movement of the interest rate. Economists who noticed the essay were mostly baffled by it, at a loss to see how it was consistent with the story of *Prices and Production*.

To address criticisms of the capital theory that *Prices and Production* had sketched only in bare outline, Hayek worked for seven years to produce *The Pure Theory of Capital* (1941). Where previous economists had mostly theorized about capital only as far as necessary to explain interest rates, Hayek wanted to build a capital theory that would be "useful for the analysis of the monetary phenomena of the real world." That is, he tried to spell out, in more detail than had been possible in *Prices and Production*, a theory of capitalistic production that would be useful for improving our understanding of the business cycle. The book provided an elaborate analysis of time-consuming production. With the Second World War diverting his attention to other concerns, however, Hayek cut the project short and

⁶⁴ Piero Sraffa, "Dr. Hayek on Money and Capital," *Economic Journal* 42 (March 1932), pp. 42–53.

⁶⁵ F. A. von Hayek, "Money and Capital: A Reply," pp. 237–49.

⁶⁶ Hayek, *Profits, Interest, and Investment*, pp. 3–71.

never completed a planned second volume that would have applied the elaborated capital theory to the business cycle. Reviewer Arthur Smithies wryly commented that Hayek had unintentionally provided an example of the very thing his cycle theory warned about, a project built on foundations so elaborate that it could not be profitably completed. Later developers of the Austrian business cycle theory, like Roger Garrison, have found the less elaborate model of *Prices and Production* more useful.⁶⁷

DID HAYEK AND ROBBINS DEEPEN THE GREAT DEPRESSION?

Milton Friedman, although he admired Hayek's political philosophy, sharply criticized his business cycle theory. He told an interviewer in 1999:

I think the Austrian business-cycle theory has done the world a great deal of harm. If you go back to the 1930s, which is a key point, here you had the Austrians sitting in London, Hayek and Lionel Robbins, and saying you just have to let the bottom drop out of the world. You've just got to let it cure itself. You can't do anything about it. You will only make it worse.... I think by encouraging that kind of do-nothing policy both in Britain and in the United States, they did harm.⁶⁸

Keynesian economists have made similar charges. Robert Skidelsky, Keynes's biographer, told the *Commanding Heights* interviewer that "Hayek was very, very aloof to the political and practical consequences of doing nothing in the early '30s, and he never really came clean on that."⁶⁹ The "do-nothing policy" or "aloofness" charge is somewhat unfair, however, and Hayek did in fact "come clean" in the sense of publicly regretting the policy advice he did give in the early 1930s.⁷⁰

Hayek's norm for monetary policy was *not* to "let the bottom drop out of the world" or to be passively indifferent to sharp deflation driven by a monetary contraction, but was rather, as noted, to stabilize nominal expenditure *MV*. What Hayek and Robbins can be faulted for was their failure to consistently advance this policy norm when it mattered most. Hayek and

⁶⁷ Here I draw on my introduction to F. A. Hayek, *The Pure Theory of Capital*, ed. Lawrence H. White (Chicago: University of Chicago Press, 2007).

⁶⁸ Gene Epstein, "Mr. Market [Interview with Milton Friedman]." *Hoover Digest*, no. 1 (1999). Available online at <http://www.hooverdigest.org/991/epstein.html>.

⁶⁹ *Commanding Heights* interview with Lord Robert Skidelsky. Available online at http://www.pbs.org/wgbh/commandingheights/shared/minitext/int_robertskidelsky.html.

⁷⁰ This section and the next draw heavily on Lawrence H. White, "Did Hayek and Robbins Deepen the Great Depression?" *Journal of Money, Credit, and Banking* 40 (June 2008), pp. 751–68.

Robbins understandably criticized proposals to reinflate the price level all the way back to its previous unsustainable level (a level inconsistent with the fixed gold value of the dollar), and denounced as counterproductive various schemes to use cheap credit to bring the economy out of a slump that in their view cheap credit had created. But Hayek unfortunately also expressed ambivalence about the shrinking nominal income and sharp deflation in 1929–32 because he thought that the deflation might serve a useful purpose by “breaking” price and wage rigidities. In a 1975 talk, Hayek regretted his mistake:

I am the last to deny – or rather, I am today the last to deny – that, in these circumstances, monetary counteractions, deliberate attempts to maintain the money stream, are appropriate.

I probably ought to add a word of explanation: I have to admit that I took a different attitude forty years ago, at the beginning of the Great Depression. At that time I believed that a process of deflation of some short duration might break the rigidity of wages which I thought was incompatible with a functioning economy. Perhaps I should have even then understood that this possibility no longer existed....

The moment there is any sign that the total income stream may actually shrink, I should certainly not only try everything in my power to prevent it from dwindling, but I should announce beforehand that I would do so in the event the problem arose.⁷¹

Lionel Robbins similarly, in retrospect, regretted his advice against using monetary expansion to arrest the deflation of 1930–33.

The claim that Hayek’s and Robbins’s regrettable (and subsequently regretted) advice “did harm” in the United States supposes that policy makers in the Hoover administration or at the Federal Reserve were following their advice. There is no evidence of that. Hoover’s policies of 1929–32 were formulated before the publication of *Prices and Production* (1931) and Robbins’s *The Great Depression* (1934). Besides, Hoover’s response to the onset of the Depression was far from “do-nothing.”⁷² Hoover brought business leaders to the White House to urge them not to cut wages. He created the Reconstruction Finance Corporation to bail out banks and industrial firms with cheap federal loans. He signed the Smoot-Hawley Act raising tariffs. He pushed for a large increase in federal construction spending. The list of Hoover’s interventions goes on.

⁷¹ Friedrich A. Hayek, *A Discussion with Friedrich A. von Hayek* (Washington, DC: American Enterprise Institute, 1975), pp. 5, 12.

⁷² See Murray N. Rothbard, *America’s Great Depression* (Los Angeles: Nash, 1972), chs. 7–12.

The Fed's acquiescence in deflation after 1929, and to some extent its expansionary policy before, stemmed not from Austrian business cycle theory but from Fed officials' adherence to the real bills doctrine.

THE REAL BILLS DOCTRINE VERSUS THE AUSTRIAN CYCLE THEORY

"Real bills" are short-term transferable IOUs issued by business firms to finance goods in the process of production. For example, a baker on September 1st may buy flour, paying the miller by signing a document that says in effect "I the baker will pay the miller, or assignee, \$1000 on December 1st." The bill is "real" in that it finances the baker's purchase of a tangible asset, the flour. The baker can pay off the bill in ninety days with revenues earned by selling baked goods made with the flour. The miller can keep the bill to maturity, or – if he wants cash sooner – can sell the bill to a banker. The banker will pay the miller somewhat less than \$1,000, the price reflecting its present discounted value. The bank earns interest on his purchase by holding the bill until December 1 and then collecting \$1,000 from the baker. (Alternatively put, the bill appreciates as it approaches maturity.)

There are at least two ideas called "the real bills doctrine." The first one – sometimes called "the commercial loan theory" – offers a reasonable *guideline for prudent portfolio management* by a commercial bank. It says that if the bank purchases short-term low-risk bills of exchange for its earning portfolio, the bills will almost always be repaid upon maturity, and the bank will find its cash reserves automatically replenished. In the event that a bank suffers of a sudden outflow of reserves from note or deposit redemptions, holding real bills allows the bank more readily replenish its reserves on short notice than holding ordinary loans does, because the bills are standardized instruments more readily sold for cash.⁷³

The second version of the real bills doctrine, RBD for short, which is relevant to Fed monetary policy in the 1920s and 1930s, was developed in discussions of Bank of England policy in the nineteenth century by members of the Banking School and other defenders of the Bank. It offers a fallacious *guideline for monetary policy*. It says that if the banking system, meaning the central bank where it rules the roost, will discount all of (but only) the genuine real bills (those that finance the moving of actual goods through the processes of production and distribution) offered for discount,

⁷³ See David Glasner, "The Real-Bills Doctrine in the Light of the Law of Reflux," *History of Political Economy* 24 (Fall 1992), pp. 867–94.

it will properly accommodate the “needs of trade” for financing but will not overexpand. That is, it will not expand the money supply so far as to raise the price level or (under a gold standard) drive gold from the country and endanger convertibility.⁷⁴

There are at least two major problems with the RBD as a guideline for monetary policy. The first was pointed out by Henry Thornton in 1802, in a criticism of his contemporaries who argued that the Bank of England could not be responsible for raising prices while the gold standard was suspended, because it had confined its lending to real bills. Thornton noted that restricting the *quality* or *type* of assets that a central bank acquires does not insure that the *quantity* of its monetary liabilities is properly restricted. The volume of real bills coming to the bank does not tightly constrain the bank’s expansion because the bank can arbitrarily increase that volume by discounting on more favorable terms.⁷⁵

For a banking system on a gold standard, the operation of gold redemption (as enforced by the interbank clearing system and the price-specie-flow mechanism) equilibrates the supply and demand for bank liabilities, independently of the type of assets banks acquire. For a central banking system that is only weakly constrained by gold convertibility (like the Federal Reserve in the 1920s and ‘30s), and *a fortiori* for a central bank issuing fiat money (such as the Fed after 1971), restricting its discounting operations to one *category* of debt instruments does not constrain the *quantity* of its issues.

The second major problem is that stabilizing the price level and “accommodating the needs of trade” – if it means meeting every increase in the demand for loanable funds with an increase in the supply of loanable funds via credit expansion, rather than letting the interest rate rise – will result in excessive credit expansion. This was Hayek’s critique of Federal Reserve policy in the 1920s. The RBD lacked the notion of a Wicksellian natural rate that the central bank’s discount rate should match in order to avoid disruptive monetary policy.

Had the Fed been tightly constrained by the gold standard, it would have had to raise the discount rate promptly to safeguard its gold reserves as soon an overexpansion began to result in an outflow of gold, and the real bills doctrine would have had little scope to misguide monetary policy. But

⁷⁴ David Laidler, “Misconceptions about the Real Bills Doctrine: A Comment on Sargent and Wallace,” *Journal of Political Economy* 92 (February 1984), p. 153.

⁷⁵ Henry Thornton, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* [1802], ed. F. A. Hayek (London: George Allen and Unwin, 1939), pp. 252–3. Available online at http://files.libertyfund.org/files/2041/Thornton_1410_Bk.pdf.

just as the Fed began operations in 1914, the outbreak of war in Europe sent massive gold flows into the United States. European countries left the gold standard, and did not return to it in consistent or committed fashion between the wars, severely weakening the international price-specie-flow constraint by comparison to the classical gold standard.⁷⁶ The real bills doctrine (version 2) correspondingly had wide scope to lead the Fed's monetary policy astray.

Some RBD advocates thought that the Federal Reserve had pursued an excessively expansionary policy of 1927–8 that had sown the seeds for the downturn of 1929. Their message appeared to be similar to that of the Austrians, but the appearance was misleading. The two schools' criteria for excess were different. Where the Austrians judged Fed policy overexpansive for artificially expanding the supply of loanable funds, pushing or holding the market rate of interest below the natural rate, the RBD advocates, in economist David Laidler's words, judged the Fed overexpansive only to the extent that its credits went to borrowers other than those who offered real bills and thereby "fuelled 'speculative investment' in the stock market and an unsustainable investment boom."⁷⁷ Real-bills adherents within the Fed judged credit creation by an asset-category test: purchasing real bills would never disturb the market, but extending credit in any other way (e.g., by purchasing government bonds) always would. Such a *qualitative* test failed to gauge whether the *volume* of the banking system's lending properly matched the volume of voluntary savings deposited with banks.

The Austrian and real-bills-doctrine views were also quite distinct in their prescriptions for monetary policy. It was the RBD rather than the Austrian theory that guided the Fed's thinking. (There is no evidence that *Prices and Production* influenced Fed officials after its publication in 1931, and it could not have done so before.) Hayek's policy norm of stable nominal income called (even if Hayek himself sometimes failed to call) for expansionary monetary policy to offset the severe shrinkage of nominal income in the 1930–33 period. The real bills doctrine, by contrast, implied that monetary contraction was appropriate to match the shrunken volume of real bills offered for discount in a period of shrunken economic activity.

The economic historian Barry Eichengreen has identified Adolph Miller of the Federal Reserve Board and the governors of the Philadelphia and

⁷⁶ Allan H. Meltzer, *A History of the Federal Reserve*, vol. 1: 1913–1951 (Chicago: University of Chicago Press, 2003), pp. 83ff.

⁷⁷ David Laidler, "Meltzer's History of the Federal Reserve," *Journal of Economic Literature* 41 (November 2003), p. 1263.

Dallas Federal Reserve Banks as “outspoken advocates of letting nature run its course” after 1929. Miller had been a member of the Board since its beginning in 1914, and before that an academic economist. Evidence of the Board’s adherence to the RBD during Miller’s tenure can be found in the Board’s Tenth Annual Report of 1923, which declares: “It is the belief of the Board that there is little danger that the credit created and distributed by the Federal Reserve Banks will be in excessive volume if restricted to productive uses.”⁷⁸

Hayek in *Monetary Theory and the Trade Cycle* sharply criticized the RBD’s elastic-credit-supply norm for disabling the economy’s “interest rate brake,” meaning the equilibrating tendency of the interest rate to rise in the face of greater credit demand and thereby to limit investment to available savings. Where Mises’s scenario of the typical business cycle had pictured the central bank as actively *initiating* the boom by using monetary expansion to drive interest rates down, Hayek viewed the Fed as having *amplified* an investment upswing already underway by using monetary expansion to prevent the market interest rate from rising as it should have to match the rising natural rate when the rising demand for loanable funds exceeded voluntary saving. Elastic credit had thus enabled the launching of unsustainable new investments, creating the unsustainable boom. Policy based on the real bills doctrine was, for Hayek, not just a minor error. It was a principal source of the Great Depression the world was experiencing.⁷⁹

⁷⁸ Barry Eichengreen, “The Keynesian Revolution and the Nominal Revolution: Was There a Paradigm Shift in Economic Policy in the 1930s?” UC Berkeley working paper (March 1999), p. 12. Fed 1923 Report as quoted by Thomas M. Humphrey, “The Real Bills Doctrine,” Federal Reserve Bank of Richmond *Economic Review* 68 (1982), p. 11. For more on Miller’s views see Richard H. Timberlake, Jr., “Gold Standards and the Real Bills Doctrine in U.S. Monetary Policy,” *Independent Review* 11 (2007), esp. pp. 239–43. For further evidence of the Fed’s adherence to the real bills doctrine see Richard H. Timberlake, Jr., *Monetary Policy in the United States: An Intellectual and Institutional History* (Chicago: University of Chicago Press, 1993), pp. 259–83; David C. Wheelock, *The Strategy and Consistency of Federal Reserve Monetary Policy, 1924–1933* (Cambridge: Cambridge University Press, 1991), p. 111; Allan H. Meltzer, *A History of the Federal Reserve*, pp. 76, 138–9, 263–6, 322; and David Laidler, “Meltzer’s History of the Federal Reserve.”

⁷⁹ Hayek, *Monetary Theory and the Trade Cycle*, pp. 179–80.

The New Deal and Institutional Economics

Rexford G. Tugwell sat in a marble-clad lobby in Rome, Italy. It was October 1934. A Columbia University economist who had become a key policy adviser to President Franklin Roosevelt and an architect of New Deal programs, he was waiting to meet with Benito Mussolini, the Italian Prime Minister and Fascist Party leader. Tugwell had been following Italy's economic policy experiments with keen interest. He saw in Italian fascism an economic policy model with some attractive features. In his diary two nights earlier, Tugwell had written that Mussolini's regime was "doing many of the things which seem to me necessary" and was "the cleanest, neatest [*sic*], most efficiently operating piece of social machinery I've ever seen. It makes me envious."¹ Tugwell was not alone in wanting to rationalize the social and economic systems of the United States. Before 1935 many Progressives could and did admire aspects of fascism's economic system, despite their distaste for its repression of civil liberties. American expressions of admiration for Mussolini's economic policies declined after his invasion of Abyssinia in 1935 and finally stopped when he allied with Hitler the following year.

FRANKLIN ROOSEVELT AND THE COMMAND-ECONOMY MODEL

Franklin Delano Roosevelt assumed the American presidency on a rainy afternoon in March 1933, during the depths of the Great Depression. In his first inaugural address he declared that the federal government must

¹ Rexford G. Tugwell, *The Diary of Rexford G. Tugwell: The New Deal, 1932–1935*, ed. Michael Vincent Namorato (New York: Greenwood Press, 1992), pp. 138–9 (entry dates: 20 and 22 October 1934).

treat the depression “as we would treat the emergency of war.” He was not speaking abstractly. Roosevelt was proposing to revive the Wilson administration’s command-economy measures from the First World War.² Under Wilson’s measures of 1917–18 the federal government had imposed non-market command and control measures on industry. A cluster of new federal bureaus (the War Industries Board, the U.S. Food Administration, the U.S. Fuel Administration, and their many subsidiaries) enlisted business firms and labor unions into an effort to restrict competition and plan output through industrial cartels. Tugwell advised Roosevelt to revive such efforts in new forms.

Similar ideas were being tried elsewhere in the world. In Italy, led by Mussolini from 1922 to 1943, the system of cartelization and planning by “corporatives” – government-business-labor boards with government the controlling partner – was known as corporativism or fascism.³ “Fascism” has since become an emotionally charged term, associated less with economic policy than with rampant militarism and civil repression. F. A. Hayek would argue in *The Road to Serfdom* (see Chapter 6) that there is a connection between the two aspects: centralized planning measures will lead any government trying to make them work down a slippery slope to political repression.

As an economic policy system, fascism is a nationalistic form of socialism with a veneer of private ownership. In Hitler’s Germany, the ruling party that imposed fascist economic policies called itself the National Socialist German Workers Party, or Nazi Party for short. Fascism retains nominal private ownership of business but puts government in close control of major investment and production decisions. Mussolini’s and Hitler’s parties appealed to a different constituency from Marxian socialist parties, but state control of the economy was the common prescription. Hayek in 1933 noted the similarity of Hitler’s version to other versions of socialism: “The collectivist and antiindividualist character of German National Socialism is not much modified by the fact that it is not a proletarian but a middle class socialism, and that it is, in consequence, inclined to favour the small artisan

² Wolfgang Schivelbusch, *Three New Deals: Reflections on Roosevelt’s America, Mussolini’s Italy, and Hitler’s Germany, 1933–1939* (New York: Picador, 2006), pp. 40–1, quotes other militaristic declarations in Roosevelt’s speech and notes that “when the leaders of the New Deal talked about the experience of war, they were referring to World War I.”

³ For recent discussions of the parallels between Mussolini’s and Roosevelt’s economic policies see Schivelbusch, *Three New Deals*, and Jonah Goldberg, *Liberal Fascism* (New York: Doubleday, 2007).

and shop keeper and to set the limit up to which it recognizes private property somewhat higher than does communism.”⁴

FRANKLIN DELANO ROOSEVELT (FDR) AND THE NRA

Two pieces of legislation in 1933 spearheaded Roosevelt’s New Deal initiative: the National Industrial Recovery Act (NIRA) and the Agricultural Adjustment Act (AAA). The goals were recovery and reform. The means were extensions of federal government control over the economy. Behind the acts lay the theory that sheltering American businesses from destructive competition would help return them to profitability, and thereby return the economy to prosperity. The National Recovery Administration (NRA) established by the NIRA organized industries into federally supervised Code Authorities, government-sponsored cartels for arranging collusion among the participating firms. The Code Authorities decided and enforced prices, production quotas, employment, and distribution methods.

John T. Flynn, a leading contemporary critic of the NRA, described the system as follows:

The NRA provided that in America each industry should be organized into a federally supervised trade association. It was not called a corporative [as in Mussolini’s Italy]. It was called a Code Authority. But it was essentially the same thing. These code authorities could regulate production, quantities, qualities, prices, distribution methods, etc., under the supervision of the NRA. This was fascism. The anti-trust laws forbade such organizations. Roosevelt had denounced Hoover for not enforcing these laws sufficiently. Now he suspended them and compelled men to combine.⁵

Flynn here meant fascism in the economic-policy sense, not in the sense of militarism or repression. As he put the distinction: “In those days fascism was not defined as anti-Semitism. It was a word used to describe the political system of Mussolini.”⁶ As the quoted passage hints, Flynn at least initially was a Progressive who supported the antitrust laws. He had supported FDR in the 1932 election.

⁴ Hayek, “Nazi-Socialism” [1933] in *The Road to Serfdom: Text and Documents, the Definitive Edition* (Chicago: University of Chicago Press, 2007), p. 247. On Mussolini as a Marxist-Leninist turned nationalistic socialist, see Joshua Muravchik, *Heaven on Earth: The Rise and Fall of Socialism* (San Francisco: Encounter Books, 2002), ch. 6.

⁵ John T. Flynn, *The Roosevelt Myth* (New York: Devin-Adair, 1948), p. 43.

⁶ *Ibid.*, pp. 78–9.

The NRA Code Authorities drafted some 550 industry codes covering about 80 percent of nonagricultural industry. They outlawed more than 1,000 “unfair” competitive practices. As a contemporary Brookings Institution study noted, the NRA’s planning effort was not fully comprehensive in that the program was designed “to operate within a profit economy.” Because the industry codes were drafted by a variety of industry Code Authorities, they “introduced no coordinated adjustment of relative prices.”⁷

THE THEORY BEHIND THE NRA

Rexford Tugwell first proposed the outlines of the NRA in *The Industrial Discipline and the Governmental Arts* (1932), a book that he published just before joining the administration.⁸ A contemporary British reviewer summarized the author’s recommendations:

He proposes that all of the concerns within an industry be formed into an “association.” These cartellised industries, then, are to be largely self-governing, but subjected to specific control by some powerful national agency, or Board. Representatives of the industries themselves, and of the labourers employed therein, are to participate, with public officials, in this control. This democratic dictatorship is to allocate capital funds, supervise working conditions, and, when necessary, fix wages and prices.

That Dr. Tugwell’s plan is in close harmony with President Roosevelt’s policy is evident by a consideration of the Industrial Control (National Recovery) Act, which became law in the United States on June 16, 1933. But as to whether or not the ultimate philosophy of the Administration is in accord with Dr. Tugwell’s neo-socialism, only time can tell.⁹

His biographer reports that, as a member of the “Brain Trust” advising candidate Roosevelt, Tugwell

was assigned the task of working on agricultural recovery and industrial cooperation. For the latter, he proposed the last chapter of his *Industrial Discipline* as a solution to the industrial problems in the United States. . . . After Roosevelt’s nomination was secured, Tugwell presented . . . a memorandum calling for the creation of a National Economic Council.

⁷ Charles L. Dearing, Paul T. Homan, Lewis L. Lorwin, and Leverett S. Lyon, *The ABC of the NRA* (Washington, DC: Brookings Institution, 1934), p. 38.

⁸ Rexford G. Tugwell, *The Industrial Discipline and the Governmental Arts* (New York: Columbia University Press, 1932).

⁹ William S. Hopkins, Review of *The Industrial Discipline and the Governmental Arts* by Rexford G. Tugwell, *The Economic Journal* 43 (September 1933), pp. 501–2. Tugwell’s sketch of a central-planning U.S. Industrial Integration Board and its subsidiary industry integration associations appears in Tugwell, *Industrial Discipline*, pp. 212–16.

After Roosevelt's inauguration, Tugwell was "actively involved in the drafting and eventual passage of the Agricultural Adjustment Act and the National Industrial Recovery Act."¹⁰

Tugwell believed that the Great Depression had been caused by industrial overproduction that had clogged markets, driven by myopic profit-seeking and abetted by the absence of any top-down oversight of the economy to prevent such problems. Here is how Tugwell in his diary recalled explaining the cause of the Depression to the other members of the Brain Trust:

I said that our troubles were made by businessmen and could only be corrected by disciplining business. Businessmen had been able to take advantage of an unusual situation, arising out of the advance in productivity during the war. Costs had fallen. But prices had not. Nor had wages risen. Therefore what consumers had to buy with had become disproportionate to the goods being produced. Some of them could not be sold. This caused unemployment. The unemployed, of course, reduced their buying to a minimum. And thus a spiral of decline set in.¹¹

And here is how Tugwell, from the vantage point of 1948, summarized the same view of the 1929 bust in an academic article:

It is one of the unalterable conditions for the successful continuation of large-scale industry that purchasing power among consumers must be sufficient to carry off the volume produced. In order to maintain purchasing power in volume, consumers' incomes and the total of prices attached to goods and services for sale must be roughly equal. They cannot be equal unless prices come down as costs come down; otherwise, the increasing profits go into more factories and increased production. In the long run warehouses fill with goods for which there is no demand. This is a very short and, because short, inaccurate account of the basic trouble in 1929. It leaves out, for instance, the effect of the vast pools of sterile savings, and also those which financed the wild speculation after 1927. But it does emphasize the fact that, by 1929, productive power had far outrun purchasing power. The farmers had first been priced out of the market; then other consumers had followed; and all the time vast increases in plant were being made.¹²

Tugwell here suggested that competition among business firms, which can normally be counted on to reduce prices in line with reduced costs, and to bid wages up in line with increased worker productivity, was effectively absent. The *overproduction* (or underconsumption) doctrine he expressed,

¹⁰ Namorato, *Diary*, pp. 5–6. "Industrial cooperation" here means cartelization or corporativism.

¹¹ Rexford G. Tugwell, *Diary*, pp. 290–1.

¹² R. G. Tugwell, "The New Deal in Retrospect," *Western Political Quarterly* 1 (December 1948), p. 376.

complete with its indictment of businessmen, was reflected in a remarkable passage of Roosevelt's first inaugural address in which the new president declared:

Plenty is at our doorstep, but a generous use of it languishes in the very sight of the supply. Primarily this is because the rulers of the exchange of mankind's goods have failed, through their own stubbornness and their own incompetence, have admitted their failure, and abdicated. Practices of the unscrupulous money changers stand indicted in the court of public opinion, rejected by the hearts and minds of men.¹³

Tugwell's and Roosevelt's prescription: take decision-making out of businessmen's hands and give it to government-sponsored cartels that would plan reductions in supply under the guidance of the NRA and AAA.

UNDERCONSUMPTION AND J. A. HOBSON

In his revised diary Tugwell noted that he did not owe the underconsumption theory of depressions to John Maynard Keynes, but "had been influenced by J. A. Hobson more than any one other individual."¹⁴ Hobson, a British socialist influenced both by Marxism and by the institutionalist economist Thorstein Veblen, had developed his theory of depressions in *The Physiology of Industry* (coauthored with A. F. Mummery, 1889), *The Problem of the Unemployed* (1896), his best-known work *Imperialism* (1902), and *The Industrial System* (1909).¹⁵ Hobson took the Marxian concept of "surplus value" – the employer paying the worker less than the value of his product and pocketing the difference – and put it to use in constructing a business cycle theory.

Friedrich Engels had sketched a similar idea in an 1844 article: Modernization and industrial concentration tend to lead to higher

¹³ Franklin Delano Roosevelt, "First Inaugural Address" in *Great Speeches*, ed. John Grafton (Mineola, NY: Dover, 1999), p. 30. Tugwell's fellow Brain Truster Raymond Moley was principal author of the address; see Davis W. Houck and Mihaela Nocasian, "FDR's First Inaugural Address: Text, Context, and Reception," *Rhetoric and Public Affairs* 5 (Winter 2002), pp. 649–78.

¹⁴ *Ibid.*, p. 291. The influence of Hobson's theory on Tugwell has been noted by Malcolm Ruthford, "American Institutionalism and Its British Connections," *European Journal of the History of Economic Thought* 14 (June 2007), pp. 291–323. Ruthford also remarks that Thorstein Veblen had earlier "made many references to Hobson's underconsumptionist ideas in his treatment of business depressions."

¹⁵ For a book-length treatment of Hobson's ideas see John Allett, *New Liberalism: The Political Economy of J. A. Hobson* (Toronto: University of Toronto Press, 1981). Hobson entitled his autobiography *Confessions of an Economic Heretic* (London: George Allen and Unwin, 1938).

productivity and higher profits but lower wages. Underpaid workers cannot afford to buy the increased supply of goods for sale. By implication, capitalists do not spend enough out of their profits to take up the slack. The overproduction causes a depression: In Engels's vivid phrase, "the people starve from sheer abundance."¹⁶ Note that the prices of goods, for some reason, do not adjust to clear the market.

David Hamilton summarized Hobson's theory as follows:

The unearned surplus results in a maldistribution of income. The maldistribution of income means excess saving. Excess saving leads to overinvestment. Overinvestment, the product of excess saving, means inadequate [consumer] purchasing power. This leads to economic breakdowns.¹⁷

Hobson viewed imperialism as a capitalist economy's way of exporting its excess saving and selling its overproduced goods, at least for a while.¹⁸ Restating his theory in 1933, Hobson drew the same implication for economic policy that Tugwell did:

[A] consciously planned economic system . . . would show no natural or normal tendency to the cyclical fluctuations which carry so much waste owing to the stoppage of large quantities of capital and labour.¹⁹

In elaborating his own better-known variation on the underconsumption theme, Keynes credited Hobson with "see[ing] the truth obscurely and imperfectly."²⁰ We will discuss Keynes's and earlier underconsumption theories in the next chapter.

Tugwell learned about Hobson's theory of depressions from his Columbia University colleague Wesley Clair Mitchell, who taught and wrote about business cycles. Mitchell's own affinity for the theory can be seen in his framing of "the basic economic problem that now confronts mankind" as "the problem of developing an economic organization that will enable the citizens of a modern state to buy from one another what modern industrial methods enable them to produce."²¹

¹⁶ Muravchik, *Heaven on Earth*, p. 65.

¹⁷ David Hamilton, "Hobson with a Keynesian Twist," *American Journal of Economics and Sociology*, 13, no. 3. (April 1954), p. 274. Hamilton goes on to compare and contrast Hobson's theory of depression to that of Keynes.

¹⁸ Lenin acknowledged Hobson's influence on his own critique of imperialism in the preface to his book *Imperialism: The Highest Stage of Capitalism* [1917] (New York: International, 1939).

¹⁹ J. A. Hobson, "Underconsumption: An Exposition," *Economica* (old series) 42 (November 1933) [with a "Reply" by E. F. M. Durbin], p. 409.

²⁰ Keynes, *General Theory*, p. 367.

²¹ Quoted by Tugwell, *Diary*, p. 342.

Tugwell saw his own diagnosis of the Depression as combining Hobson's theory with complementary insights into "scientific management" and into the problems of agriculture.²² An effort to relieve the Depression by mitigating what Hobson called "the maldistribution of income" may be seen in the efforts of NRA Code Authorities to raise wages at the expense of profits, hoping thereby to increase aggregate demand for goods (as well as to enlarge labor's share of the pie).²³ Tugwell worried that scientific management or Taylorism, discussed in more detail later in this chapter, enabled a massive increase in output and thereby increased the threat of overproduction. Regarding the problems of American agriculture, Tugwell had written in 1924:

We are no longer convinced that it is necessary to depend altogether upon the clumsy mechanisms of unregulated price determination to reduce or spur consumption as production varies, especially when the effects on productive forces are so disastrous as we clearly see them to be in agriculture.²⁴

Agriculture, as a single industry, can have overproduction in the sense of a crop so large that the price of produce falls to a point where farmers make losses in a given year. Tugwell thought that the same problem could trouble business in general.

ECONOMIC AND LEGAL PROBLEMS WITH THE NRA AND AAA

The NRA had serious logical flaws as a remedy for depression. The act hoped to restore profits in each industry by restricting the industry's output, thereby raising its output price and profit margin, as a monopolist would. For any *one* industry, holding the output of the others constant, profits might indeed be increased by such restriction. But because the profits thus created were premised on restricting output, they could not be a stimulus to renewed investment or hiring. Output restriction implies that the use of plant and equipment in the industry, as well as employment, will be *shrinking* and not expanding.

²² Ibid., p. 291

²³ On wage-raising efforts by the NRA see the remarks of George Terborgh in Robert M. Hutchins et al., "NRA Examined," *American Economic Review* 25 (Supplement, *Papers and Proceedings*) (March 1935), p. 2.

²⁴ Rexford Guy Tugwell, "The Problem of Agriculture," *Political Science Quarterly* 39 (December 1924), p. 555. For Tugwell's indictment of laissez faire in agriculture, see also R. G. Tugwell, "Farm Relief and a Permanent Agriculture," *Annals of the American Academy of Political and Social Science* 142 (March 1929), pp. 271–82.

Equally fatal, it was a fallacy of composition to think that the profit effect in one industry could generalize to all industries simultaneously. The artificially high prices gained by one industry (e.g., steel) would raise costs and thereby *reduce* profits for other industries that use its product as an input (e.g., the automobile industry). When every industry restricts its own output, the logically necessary result is a shrinkage of total output that makes the entire economy poorer, discourages investment and employment, and blocks recovery. Put another way, the monopoly restriction of one industry's output can increase that industry's share of national income, but it cannot raise national income. Restricting all industries is self-defeating. Relative shares end up about the same, while the overall pie shrinks from every side. John Maynard Keynes pithily identified the general problem with such policies in 1934: "Whatever may be the best remedy for poverty in plenty, we must reject all those alleged remedies which consist, in substance, of getting rid of the plenty."²⁵ George Terborgh of the Brookings Institution noted specifically in 1935 that the NRA's "sudden boosting of cost and price levels was untimely. It promoted scarcity rather than abundance."²⁶

The Agricultural Adjustment Act was a similar plan for agriculture, also bearing Tugwell's imprint. It authorized a massive reduction in food supply in order to raise food prices and thereby (it was hoped) farm income. The federal government bought crops and removed them from the market in order to support their prices. It ordered six million young pigs slaughtered in 1933 to reduce pork supplies and raise prices. *Time* magazine reported: "Caught between AAA pig purges and the historic drought of 1934, the pig population of the U.S. took a mighty tumble. In 1933, when little pigs first got the attention of Franklin Roosevelt's planned agricultural economy, the porker crop was a whacking 84,200,000. For 1935 the crop fell to 55,086,000 and pork prices soared."²⁷ Farmers were paid to take land out of production. Such policies could raise farm profits, but the results for the economy as a whole were perverse. Less food cannot bring greater prosperity.

²⁵ John Maynard Keynes, "Poverty in Plenty: Is the Economic System Self-Adjusting?" in *The Collected Writings of John Maynard Keynes*, ed. Donald Moggeridge, vol. XIII, *The General Theory and After. Part I: Preparation* (London: Macmillan, 1973), pp. 485–92; quoted in Charles Robert McCann, Jr., ed., *The Elgar Dictionary of Economic Quotations* (Cheltenham, UK: Edward Elgar, 2003), p. 89.

²⁶ Terborgh in Hutchins et al., "NRA Examined," p. 2.

²⁷ "Livestock: Rising Birthrate," *Time*, 10 July 1939.

As should have been expected, the NRA and AAA impeded recovery. Summarizing the numbers, Scott Sumner has reported:

During the first half of 1933 industrial production had increased simultaneously with the price level. After the adoption of the NIRA codes, however, industrial production dropped sharply while prices continued to increase.²⁸

The Federal Reserve's index of industrial production, having risen nearly 50 percent in the first seven months of 1933 before the NIRA codes were instituted on July 15, dropped 18.4 percent in the last five months of the year.

The United States Supreme Court unanimously found the NIRA unconstitutional in 1935. The ruling came "to everybody's relief," according to Flynn. The economic historian Ellis W. Hawley offers the more circumspect but corroborating view that by the time of the Supreme Court ruling "the NRA had already lost most of its popularity and support." Even Rexford Tugwell later acknowledged that the NRA had not been an economic success.²⁹ The Supreme Court struck down the NRA on the grounds that it surrendered Congressional law-making powers to the executive branch. The Court wrote: "Such a delegation of powers is unknown to our law and it is utterly inconsistent with the constitutional prerogatives and duties of Congress." The Court did not rule on the economic perversity of the program, which by that time was widely recognized. But after the decision was read, Justice Brandeis reportedly told one of FDR's legal aides: "This is the end of this business of centralization, and I want you to go back and tell the president that we're not going to let this government centralize everything."³⁰ The Court similarly ruled against the AAA in 1936, but the program was reborn in 1938 as a "soil conservation" measure, with stronger crop-limitation and income-support features. It remains the basis for current U.S. farm policy.

INSTITUTIONALIST ECONOMICS

The NRA and the AAA were designed largely by economist Rexford Tugwell and lawyer-economist Gardiner Means. The initiatives were

²⁸ Scott Sumner, "Price-Level Stability, Price Flexibility, and Fisher's Business Cycle Model," *Cato Journal* 9 (Winter 1990), p. 723.

²⁹ Flynn, *Roosevelt Myth*, p. 46. Ellis W. Hawley, *The New Deal and the Problem of Monopoly* (New York: Fordham University Press, 1995), p. 130. Tugwell, "New Deal in Retrospect," pp. 381–2.

³⁰ Quoted in Amity Shlaes, *The Forgotten Man: A New History of the Great Depression* (New York: HarperCollins, 2007), p. 243.

supported by other economists working in the intellectual tradition known as institutionalism. The prevalence of institutionalist ideas and of support for the New Deal among American economists was roughly indicated by a joint review of nine books on the New Deal in the *Quarterly Journal of Economics* of February 1935. Three of the books reviewed were (at least partly) institutionalist works supporting the NRA. Two of the other books were socialist works also supporting the New Deal.³¹

The peak periods of American policy influence for institutionalists were the Progressive Era and the New Deal. Other important institutionalist economists during Tugwell's day included Clarence Ayres (1891–1972); John Maurice Clark (1884–1963); Gardiner C. Means (1896–1988), who was also active in the Roosevelt administration; and Wesley Clair Mitchell (1874–1948). Among the Progressive-era founders of American institutionalism, publishing their most important work before 1920, were Simon Patten (1852–1922), Richard T. Ely (1854–1943), Thorstein Veblen (1857–1929), Edwin R. A. Seligman (1861–1939), and John R. Commons (1862–1945). Ely and Commons, as noted in [Chapter 1](#), were especially influential during the Progressive Era.

Institutionalists today are heterodox economists outside the professional mainstream, but it was not so in the half-century between 1890 and 1940.³² James Galbraith has rebutted the suggestion that his father John Kenneth Galbraith, because he was an institutionalist, must have spent his entire career outside the mainstream:

My father's early Institutionalism was the mainstream at the time. The child of philosophical pragmatism and scientific Darwinism, Institutionalism

³¹ Leo Rogin, "The New Deal: A Survey of the Literature," *Quarterly Journal of Economics* 49 (February 1935), pp. 325–55. The institutionalist works were Arthur B. Adams, *Our Economic Revolution* (Norman: University of Oklahoma Press, 1933); Adolf A. Berle, Jr., et al., *America's Recovery Program* (New York: Oxford University Press, 1934), a series of lectures whose authors included Rexford G. Tugwell and other administration officials; and Columbia University Commission, *Economic Reconstruction* (New York: Columbia University Press, 1934), whose authors included Wesley C. Mitchell and John Maurice Clark. The socialist works were Charles A. Beard and George H. E. Smith, *The Future Comes* (New York: Macmillan, 1933); and George Soule, *The Coming American Revolution* (New York: Macmillan, 1934).

³² Malcolm Rutherford, *The Institutional Movement in American Economics, 1918–1947: Science and Social Control* (Cambridge: Cambridge University Press, 2011), discusses the history of institutionalism in detail, including the influence of institutionalists on various aspects of the New Deal. See also Rutherford, "Institutionalist Economics: Then and Now," *Journal of Economic Perspectives* 15 (Summer 2001), pp. 173–94; and "Institutional Economics at Columbia University," *History of Political Economy* 36 (Spring 2004), pp. 31–78.

linked Veblen, Commons at [the University of] Wisconsin and Ayres in [The University of] Texas; it gave us the New Deal and, in particular, Social Security. It was allied to a German-influenced historical economics, which controlled the American Economic Association. The AEA ... was formed in the 1890s largely to oppose the free-trade doctrines of 19th century British economics.³³

One might quibble with Galbraith's statement that institutionalism was *the* American mainstream or the dominant school of economic thought, and say instead that it and neoclassical economics were contending for the professional mainstream in the first half of the twentieth century.

TUGWELL'S BACKGROUND

Rexford Guy Tugwell (1891–1979) received a Ph.D. in economics in 1922 from the Wharton School (University of Pennsylvania), where he studied under Simon Patten. He taught at Columbia University from 1920 until 1932, when he resigned to join the Roosevelt administration. In 1927 he visited the USSR as a member of a delegation, and came away impressed (although he had missed a chance to meet Stalin). After his return he wrote several academic articles favorable toward the Soviet experiment. Tugwell became a key economic policy adviser to Franklin Delano Roosevelt during and after the 1932 presidential campaign. He was a prominent member of FDR's "Brain Trust" along with several other Columbia professors: Raymond Moley from political science who had recruited the group, Adolf A. Berle, Jr. from economics, and Gardiner C. Means, from the law school. A contemporary observer referred to the "Brain Trust" as "that little group of college professors which is so vitally influential in the Roosevelt Administration." He added that "Professor Tugwell is high in government counsels, his influence is far-reaching, and his advice is certain to be respected."³⁴

Tugwell was named assistant secretary of agriculture in 1933, the position he held while helping to devise the economic centerpieces of the early New Deal, the National Industrial Recovery Act and the Agricultural Adjustment Act. The following year he was promoted to undersecretary. He visited Italy, where he had his audience with Mussolini, and again came away impressed. In 1935, the year of the NRA's demise, he was named head of the Resettlement Administration. There he worked on the "greenbelt

³³ James Galbraith, "Hip Heterodoxy and the History of Economics," TPM Café Blog (29 May 2007), available online at http://www.tpmcafe.com/blog/bookclub/2007/may/29/hip_heterodoxy_and_the_history_of_Economics.

³⁴ Hopkins, Review, p. 500.

communities” program, which has been described as “a quasi-utopian urban development project that sought to construct new self-sufficient cities from the ground up.”³⁵

Tugwell’s biographer reports that while a student at Wharton “Tugwell absorbed and accepted [Simon] Patten’s rejection of the classical economists, his endorsement and belief in an economy of abundance, his commitment to experimentalism, and his acceptance of technology.”³⁶ Tugwell later wrote a 56-page obituary for Patten in a leading economics journal and edited a posthumous collection of his essays.³⁷ At the Wharton School Tugwell also “read and absorbed Thorstein Veblen’s attacks on the classicists, Taylorism and its emphasis on planning, and institutional pragmatism.”³⁸ The “rejection of the classical economists” here means most importantly the rejection of the doctrines of free international trade, laissez-faire, and the self-regulating economy (the “invisible hand”). In his diary for October 1934, describing a speech he was to give, Tugwell wrote: “I have said plainly, that there is much to be said for economic isolation, that it is here to stay, and that therefore laissez-faire is dead.”³⁹ In an earlier speech Tugwell was equally blunt: “The jig is up. The cat is out of the bag. There is no invisible hand. There never was.”⁴⁰

SIMON PATTEN

Simon Patten (1852–1922) belonged to a generation of American students who went to Germany for a doctoral degree in the social sciences or history before American universities began offering doctorates in those fields. Patten received a Ph.D. in economics from the University of Halle in 1884. Like others, he returned from Germany a Progressive, favorably impressed by the ideas of Chancellor Otto von Bismarck’s “welfare state” and “state socialism.” Patten served as professor of economics at the University

³⁵ The Eleanor Roosevelt Papers, “Rexford G. Tugwell,” in *Teaching Eleanor Roosevelt*, ed. Allida Black, June Hopkins, et. al. (Hyde Park, NY: Eleanor Roosevelt National Historic Site, 2003), available online at <http://www.nps.gov/archive/elro/glossary/tugwell-rexford.htm>. A detailed and sympathetic treatment of Tugwell’s ideas and New Deal policy making is Bernard Sternsher, *Rexford Tugwell and the New Deal* (New Brunswick, NJ: Rutgers University Press, 1964).

³⁶ Michael Vincent Namorato, “Rexford G. Tugwell: A Brief Sketch” in Tugwell, *Diary*, p. 2.

³⁷ Rexford G. Tugwell, “Notes on the Life and Work of Simon Nelson Patten,” *Journal of Political Economy* 31 (April 1923), pp. 153–208; Simon N. Patten, *Essays in Economic Theory*, ed. Rexford G. Tugwell (New York: A. A. Knopf, 1924).

³⁸ Namorato, *Diary*, p. 2.

³⁹ Tugwell, *Diary*, p. 137.

⁴⁰ Quoted in Sternsher, *Rexford Tugwell and the New Deal*, p. 13.

of Pennsylvania from 1888 to 1917. His most important works were *The Theory of Social Forces* (1896) and *The New Basis of Civilization* (1907).

Patten taught that an “economy of abundance” lay within reach. The modern era was an age of surplus, rendering the traditional economic analysis of scarcity and economizing largely obsolete. To spread the abundance the American government should, like Bismarck’s, institute prolabor workplace regulations and subsidize education. It should restrain business speculation. Like many Progressives, Patten wanted to reform not only government policy but also his fellow citizens’ behavior. He called for limiting consumer credit to prevent its irresponsible use, and for prohibiting alcohol to prevent its irresponsible consumption. He supported eugenics. In economic theory, he rejected classical economics for the more eclectic approach of the German Historical School. He favored economic cooperation over competition.

THORSTEIN VEBLEN

Scandal dogged Thorstein Veblen (1857–1929) through his academic career. He received a Ph.D. in Philosophy from Yale University in 1884. After a hiatus outside academia he returned to study economics at Cornell in 1891–2. In 1892 he took a faculty position in economics at the University of Chicago. Fourteen years later he was forced out for “flagrant marital infidelities.” In 1906 he moved to Stanford University, but three years later was again forced to resign in a sex scandal. In 1911 he secured an appointment as a lecturer at the University of Missouri, where he stayed on until he retired in 1918.

Veblen’s most influential book was *The Theory of the Leisure Class* (1899), which introduced the concepts of “conspicuous consumption” and “pecuniary emulation.” Veblen contrasted the conventional behavior analyzed by neoclassical economics with the more important “instrumental imperatives” brought by new technologies. In his article on “The Limitations of Marginal Utility” (1909) Veblen blasted neoclassical price theory, and its marginal utility analysis of demand, as irrelevant to the dynamics of the modern economy: “For an understanding of modern economic life the technological advance of the past two centuries – e.g., the growth of the industrial arts – is of the first importance; but marginal utility theory does not bear on this matter.”⁴¹

⁴¹ Thorstein Veblen, “The Limitations of Marginal Utility,” *Journal of Political Economy* 17 (November 1909), p. 621.

In *The Engineers and the Price System* (1921) Veblen charged that businessmen characteristically restrict output to gain monopoly profit, obstructing the technological advancement of industry:

[I]t is today quite an open question whether the businesslike management of the captains is not more occupied with checking industry than with increasing its productive capacity.⁴²

The title of the book refers to Veblen's view that the economy would be more efficient if an "industrial directorate" manned by engineers controlled the commanding heights, rather than the economy being guided by entrepreneurial competition and the price system. Veblen imagined that if what he called a "Soviet of Engineers" were in charge of production they would reduce waste by following the imperatives not of profit but rather of workmanship and serviceability. Planning by the Soviet of Engineers would end monopolistic restrictions of output, eliminate the unemployment of men and machines, and incidentally would curtail advertising. It would thereby bring about greater prosperity.

Veblen's writings influenced the technocracy movement, a wing of Progressivism that envisioned society as an engineering project for technical experts, including central economic planning led by industrial engineers.⁴³ An important technocrat in the Roosevelt administration was Leon Henderson, an adviser to the NRA and later the head of the Office of Price Administration, where a young John Kenneth Galbraith became deputy head. The NRA critic John T. Flynn commented that, because the NRA also incorporated farmers and businessmen into the planning process in deference to their political pull,

The NRA did not fully satisfy the technocratic groups represented by the Tugwells and their disciples in spite of many points of resemblance. The NRA left too much control in the hands of business interests whereas they would have preferred to see that control in the hands of the technicians – preferably the professors.⁴⁴

AMERICAN INSTITUTIONALISM AND GERMAN HISTORICISM

The early American institutionalists were the intellectual offspring of the ("younger") German Historical School of economics. Led by Gustav

⁴² Thorstein Veblen, *The Engineers and the Price System* (New York: B. W. Huebsch, 1921), p. 31.

⁴³ On the technocracy movement see William E. Akin, *Technocracy and the American Dream: The Technocrat Movement, 1900–1941* (Berkeley: University of California Press, 1977).

⁴⁴ Flynn, *Roosevelt Myth*, p. 79. Flynn (pp. 155–7) noted the influence of Veblen on Tugwell and on the technocrats.

Schmoller, the Historical School politically opposed classical liberalism and methodologically opposed the abstract theorizing of the old classical and the new (post-1871) neoclassical economics. Schmoller and the Austrian neoclassicist Carl Menger engaged in a bitter *Methodenstreit* or “battle over methods.”

In 1886 the American institutionalist economist Edwin R. A. Seligman praised the leading German Historical School economists as having provided a “truly scientific” alternative to the methodology and the policy views of “the orthodox school” of classical economics. He described their approach as follows:

The socialists ... uttered energetic and effective protests against the prevailing systems.... But the new ideas first obtained a truly scientific basis about the middle of the century, when three young German economists – Roscher, Knies and Hildebrand – proclaimed the necessity of treating economics from the historical standpoint. They initiated a new movement whose leading principles may be thus formulated: 1. It discards the exclusive use of the deductive method, and stresses the necessity of historical and statistical treatment. 2. It denies the existence of immutable natural laws in economics, calling attention to the interdependence of theories and institutions, and showing that different epochs or countries require different systems. 3. It disclaims belief in the beneficence of the absolute laissez-faire system; it maintains the close interrelation of law, ethics, and economics; and it refuses to acknowledge the adequacy of a scientific explanation, based the assumption of self-interest as the sole regulator of economic action.⁴⁵

In summarizing the distinctive features of the German Historical School, Joseph Schumpeter in his *History of Economic Analysis* more even-handedly observed:

the high level of historiography; the widespread respect for the historical fact; the low level of theoretical economics; the lack of respect for its values; the supreme importance attributed to the state; the small importance attributed to everything else.⁴⁶

Ludwig von Mises’s description was more caustic:

[E]conomics in the second German Reich, as represented by the Government-appointed university professors, degenerated into an unsystematic, poorly assorted collection of various scraps of knowledge borrowed from history,

⁴⁵ Edwin R. A. Seligman, “Continuity in Economics,” in Henry C. Adams, Richard T. Ely, et al., *Science Economic Discussion* (New York: Science Co., 1886), pp. 18–19. Also reprinted in Selgman, *Essays in Economics* (New York: Macmillan, 1925).

⁴⁶ Joseph A. Schumpeter, *History of Economic Analysis* (New York: Oxford University Press, 1954), p. 812. Quoted in Moss, *Socializing Security*, p. 15.

geography, technology, jurisprudence, and party politics, larded with depreciatory remarks about the errors in the abstractions of the Classical school. Most of the professors more or less eagerly made propaganda in their writings and in their courses for the policies of the Imperial Government.⁴⁷

The Historical School dismissed the elaboration of economic theory in favor of thickly descriptive historical studies whose underlying theories were only implicit. The economist Ronald Coase later quipped: “Without a theory they had nothing to pass on except a mass of descriptive material waiting for a theory, or a fire.”⁴⁸

The influence of the German Historical School was transmitted directly to the Americans who studied for their economics doctorates in Germany. Simon Patten studied at Halle University in Germany, where Schmoller had recently taught and Historical School influence was strong. Richard T. Ely also began his graduate studies at Halle, where he met Patten. Patten referred Ely to the economist Johannes Conrad, who introduced the young student to the Historical School’s ideas. Ely moved on to the University of Heidelberg to study with the leading Historical School economist Karl Knies, and received his Ph.D. from Heidelberg in 1879. Ely later wrote in his autobiography that it was Knies whom he was “glad to acknowledge, more than any other man, as *My Master*.” Ely had learned from Knies that economics belonged “neither to the natural nor to the mental sciences, but to the group of historical disciplines which have for their object the study of man in society in terms of its historical growth.”⁴⁹ Returning to the United States, Ely taught Commons and Mitchell – and future President Woodrow Wilson.⁵⁰

When Ely, Patten, Seligman, and others founded the American Economic Association in 1885 as an organization for economists opposed to laissez-faire ideas, they were inspired by Schmoller’s organization in Germany the *Verein für Sozialpolitik* (Association for Social Policy). The AEA’s initial

⁴⁷ Ludwig von Mises, *The Historical Setting of the Austrian School of Economics* (New Rochelle, NY: Arlington House, 1962), p. 23.

⁴⁸ Ronald H. Coase, “The New Institutional Economics,” *Journal of Institutional and Theoretical Economics* 140 (1984), p. 230. For an overview of the German Historical School and its doctrinal roots, see Bruce Caldwell, *Hayek’s Challenge*, ch. 2. On the school’s influence in the United States see Joseph Dorfman, “The Role of the German Historical School in American Economic Thought,” *American Economic Review* 45, *Papers and Proceedings* (May 1955), pp. 17–28.

⁴⁹ Richard T. Ely, *Ground under Our Feet* (New York: Macmillan, 1938), pp. 43–4.

⁵⁰ Regarding Ely’s influence on Wilson see Gary M. Pecquet and Clifford F. Thies, “The Shaping of a Future President’s Economic Thought: Richard T. Ely and Woodrow Wilson at ‘The Hopkins,’” *Independent Review* 15 (Fall 2010), pp. 257–77.

Statement of Principles reflected Historical School ideas not only in its affirmation of “the state as an agency whose positive assistance is one of the indispensable conditions of human progress” but also in its call for economists to pursue “historical and statistical study of actual conditions of economic life” rather than theoretical “speculation.”⁵¹

F. A. Hayek spent fourteen months in the United States in 1923–4, principally in New York City. Fresh from his studies at the University of Vienna, aided by letters of introduction from the economist Joseph Schumpeter, Hayek met many of the leading American economists of the day, including the leading institutionalists. He dropped in on Wesley Clair Mitchell’s classes at Columbia University. As a budding theorist he was naturally disappointed by their nontheoretical orientation:

I must confess that from my predominantly theoretical interest the first impression of American economics was disappointing. . . . [T]he one name by which the eager young men swore was the only one I had not known until Schumpeter gave me a letter of introduction addressed to him, Wesley Clair Mitchell. . . . It was the year in which *The Trend of Economics*, intended to provide a program for the institutionalist school, had been brought out by Rexford Guy Tugwell. And one of the first things the visiting economist was urged to do was to go to the New School for Social Research to hear Thorstein Veblen mumble sarcastically and largely inaudibly to a group of admiring old ladies – a curiously unsatisfying experience.

Hayek added that he found the American monetary theories of the day “no more satisfactory than the outcome of the more empirical work of Mitchell, which seemed to raise more questions than it answered.”⁵²

INSTITUTIONALISM AND SOCIALISM

Schmoller and other members of the German Historical School were not Marxian socialists, but were supporters of the system of state-owned

⁵¹ On Ely’s life and influence see Benjamin G. Rader, *The Academic Mind and Reform: The Influence of Richard T. Ely in American Life* (Lexington: University Press of Kentucky, 1966). The AEA statements are as quoted by Bradley W. Bateman and Ethan B. Kapstein, “Between God and the Market: The Religious Roots of the American Economic Association,” *Journal of Economic Perspectives* 13 (Fall 1999), p. 253.

⁵² F. A. Hayek, “The Economics of the 1920s as Seen from Vienna,” in *The Fortunes of Liberalism*, ed. Peter Klein, vol. 4 of *The Collected Work of F. A. Hayek* (Chicago: University of Chicago Press, 1992), pp. 36–7. On Hayek’s interaction with Mitchell see Bruce Caldwell, “Introduction” in Hayek, *Studies on the Abuse and Decline of Reason*, ed. Bruce Caldwell, vol. 13 of *The Collected Work of F. A. Hayek* (Chicago: University of Chicago Press), pp. 21–4.

enterprises (railroads, telegraphs, telephones, banks, mines, forests, power supply) and state-sponsored cartels by which Bismarck's government controlled the economy's commanding heights. Bismarck's system has been called "state socialism," as distinct from the proletarian socialism of Marx or the communitarian socialism of Owen.⁵³ The German academics who supported it were labeled the "socialists of the chair."

Scholars are divided over whether to classify the American institutionalist economist Thorstein Veblen, who criticized rather than endorsed the theoretical systems of others, as a socialist. Hayek grouped Veblen together with Hobson as exponents of "Socialist economics."⁵⁴ The socialist and Veblen scholar Arthur K. Davis has classified Veblen as a socialist on the "fringe" of "the Marxian tradition, of which he shares more than he rejects," while noting that Veblen avoided Marxian terminology and rejected Marx's prophecies of inevitable historical developments as unscientific. Like Marx, Veblen offered a critique of the capitalist system, though he objected more to waste than to worker exploitation. R. H. Landsman, by contrast, has suggested that Veblen aimed not at establishing socialism but at reforming capitalism.⁵⁵ Veblen's favorable view of an economy run by a directorate of engineers would seem to classify him as a kind of non-Marxian socialist. At the beginning of his career, Veblen was strongly influenced by Edward Bellamy's best-selling utopian socialist novel, *Looking Backward* (1887). At the end of his career, Veblen expressed sympathy for the Bolshevik experiment in Russia.

Richard T. Ely subscribed not only to the state socialism of the German Historical School but also to the "Social Gospel," the view that Christianity called for a society of less competition and greater equality.⁵⁶ The titles of his early books are indicative of his interests and outlook: *French and German Socialism in Modern Times* (1883), *Recent American Socialism* (1885), *Social Aspects of Christianity* (1889), and *Socialism: An Examination of Its Nature, Its Strength and Its Weakness, with Suggestions for Social Reform* (1894).

⁵³ For a contemporary and favorable account of Bismarck's policies by an American author, see Frederic C. Howe, *Socialized Germany* (New York: Charles Scribner's Sons, 1915). For a critical retrospective see Richard Ebeling, *Austrian Economics and the Political Economy of Freedom* (Cheltenham, UK: Edward Elgar, 2003), ch. 7.

⁵⁴ F. A. Hayek, "The 'Paradox' of Saving" in *Profits, Interest, and Investment* (London: Routledge, 1939), p. 199.

⁵⁵ A. K. Davis, "Thorstein Veblen Reconsidered," in John Cunningham Wood, ed., *Thorstein Veblen: Critical Assessments*, vol. 1 (London: Routledge, 1993), p. 99; R. H. Landsman, "The Philosophy of Veblen's Economics," in Wood, *Thorstein Veblen*, p. 116.

⁵⁶ On Ely's relationship to the Social Gospel movement see Bateman and Kapstein, "Between God and the Market," pp. 249–58.

Referring to state socialism of the Bismarckian sort, Ely's objective was to "conservatively add to our social order some of the strong features of socialism, and yet keep this social order intact."⁵⁷ With regard to Marxian socialists' call for "common ownership of the material instruments of production" he wrote:

It is a weakness of the extremists to insist on all-inclusiveness in common ownership, which much damages their case. What is necessary is that the collective ownership should become dominant in such manner as to control all other ownership and confine it within narrow limits. All the great instruments of production, like telegraphs, telephones, railways, forests, arable lands, and large manufacturing plants, must become collective property; but socialism does not imply that it is necessary to restrict individuals in the acquisition of the instruments of production on a small scale, – for example, a wheelbarrow or a cart.⁵⁸

Although he called for collective ownership of arable lands, Ely doubted that completely centralized management would work well in agriculture.⁵⁹

TAYLORISM

Rexford Tugwell was deeply impressed by "Taylorism," an industrial engineering approach based on the work of Frederick Winslow Taylor, author of *Shop Management* (1903) and *The Principles of Scientific Management* (1911). Taylor had found that labor productivity in an industrial firm can be improved by "motion and time" studies that lead to the redesign of tasks so as to eliminate unnecessary worker motions. He wrote that to discover or develop the most productively efficient methods requires "the gradual substitution of science for 'rule of thumb' throughout the mechanical arts."⁶⁰ For Tugwell, Taylor's findings reinforced Veblen's idea that monopolistic modern capitalism was failing to use technologies that could provide a greater abundance of manufactured goods.

Taylor's findings suggested to some socialists that factory productivity could be scientifically improved with or without capitalist control of factories, and by extension that economy-wide productivity could be improved by planning that extended beyond the factory floor. Vladimir Lenin took notice of Taylor's work. In 1914 he suggested that the future planned

⁵⁷ Richard T. Ely, *Socialism: An Examination of Its Nature, Its Strength and Its Weakness, with Suggestions for Social Reform* (New York: Thomas Y. Crowell & Co., 1894), p. 256.

⁵⁸ *Ibid.*, pp. 9–10.

⁵⁹ *Ibid.*, pp. 220–1.

⁶⁰ Frederick Winslow Taylor, *The Principles of Scientific Management* (New York: Harper and Brothers, 1911), p. 25.

economy would make even better use of Taylorism by applying its principles not only to the factory floor but to the organization of the economy as a whole:

Capital organises and rationalises labour within the factory for the purpose of increasing the exploitation of the workers and increasing profit. In social production as a whole, however, chaos continues to reign and grow ...

The Taylor system – without its initiators knowing or wishing it – is preparing the time when the proletariat will take over all social production and appoint its own workers' committees for the purpose of properly distributing and rationalising all social labour. Large-scale production, machinery, railways, telephone – all provide thousands of opportunities to cut by three-fourths the working time of the organised workers and make them four times better off than they are today.⁶¹

It is difficult to exaggerate the importance that Tugwell attributed to Taylorism in a philosophy-baring 1932 article, "The Principle of Planning and the Institution of Laissez Faire."⁶² Tugwell saw Taylor's work as epoch-making, so much so that the economy's failure to adjust appropriately to it was responsible for the Great Depression:

If we have been watching, describing, analyzing industry as we should, we must have known that the greatest economic event of the nineteenth century occurred when Frederick W. Taylor first held a stop watch on the movements of a group of shovelers in the plant of the Midvale Steel Company. And we must have understood, when *Shop Management* was published in 1903 that, perhaps a generation later, the world could be overwhelmed with goods...

If we had had eyes to see the implications of Taylor's work we should have known that the vast expansion of production which must follow would clog all the old channels of trade, swamp mechanisms of an artificially limited commerce, and end in a period of violent reconstruction. Some of the sufferings of the present might possibly have been avoided...

The clearing away of the present debris, and the years of expansion to come will surely witness the emergence of this new technology, matured and pervasive. Shall we be unready again for the floods of still cheaper goods?⁶³

⁶¹ V. I. Lenin, "The Taylor System – Man's Enslavement by the Machine" [1914], in *Collected Works*, vol. 20 (Moscow: Progress, 1972) pp. 152–4. For discussion of "Soviet Taylorism" see Zenovia A. Socor, "Soviet Taylorism Revisited," *Soviet Studies* 33 (April 1981), pp. 246–64.

⁶² Rexford G. Tugwell, "The Principle of Planning and the Institution of Laissez Faire," *American Economic Review* 22 (Supplement) (March 1932), pp. 75–92. Tugwell had earlier emphasized the importance of Taylorism as a cause of increased industrial productivity in his book *Industry's Coming of Age* (New York: Harcourt, Brace, 1927), pp. 30–2, 120–8. Other followers of Taylorism, members of the Taylor Society, had some lesser policy making influence during the New Deal.

⁶³ Tugwell, "Principle of Planning," pp. 86–7.

There was an unresolved tension in Tugwell's thought between his Veblenian claim that capitalism was monopolistically restraining output and his Taylorist claim that capitalism was vastly expanding output and thereby clogging its own markets.⁶⁴ Still, Tugwell's agenda was clear: stop relying on ineffective market mechanisms, and institute central planning to manage the coming abundance.

THE PRINCIPLE OF PLANNING

Just as competition among nations leads to war, Tugwell suggested, the Great Depression shows us that competition among business firms is similarly destructive and wasteful: "War in industry is just as ruinous as war among nations," while "order and reason are superior to adventurous competition."⁶⁵ The alternative was central economic planning, which Tugwell preferred to call "national planning" or simply "planning." Here we might, when we are ready, "discover lessons in contemporary Russian practice":

The disasters of recent years have caused us to ask again how the ancient paradox of business – conflict to produce order – can be resolved; the interest of the liberals among us in the institutions of the new Russia of the Soviets, spreading gradually among puzzled business men, has created wide popular interest in "planning" as a possible refuge from persistent insecurity; ...⁶⁶

Tugwell added that "many observers are recording carefully the experience there which may later on be of assistance to us," citing his own 1928 article on "Experimental Control in Russian Industry."⁶⁷ In that article Tugwell recorded that, although the Soviet system did not yet work with "perfect efficiency," it had positive results in machine and land allocation from which "we can judge the correctness of the general conception of planned control." The Russians themselves, he reported, saw that "with a well-conceived national plan, including both agriculture and industry, they might achieve what their enemies persisted in believing impossible."⁶⁸ Tugwell hoped that America would institute planning more democratically Russia had. Despite the "perhaps unfortunate" fact that the U.S. Constitution "did enact Mr. Adam Smith's principles of free enterprise,"

⁶⁴ I thank Amity Shlaes for discussion on this point.

⁶⁵ *Ibid.*, pp. 75, 84.

⁶⁶ *Ibid.*, p. 78, n. 7; p. 75.

⁶⁷ Rexford G. Tugwell, "Experimental Control in Russian Industry," *Political Science Quarterly* (June 1928), pp. 161–87.

⁶⁸ *Ibid.*, p. 172.

It seems not at all unlikely that ... some ... evolutionary process will bring us, after a certain time, to the point where planning and consequent controlling seem normal and ordinary features of economic life. This is doubtless not so satisfactory to the rational faculty as revolution and rebeginning on the Russian model. But perhaps if we come to it by persuasion and a gradual conviction of its rightness, we shall escape certain of the deplorable coercive features of Russian practice. This double result would be worth waiting for.⁶⁹

Many of the newcomers to planning ideas, Tugwell cautioned, don't realize just how sweeping are the changes in economic practices that will be required:

[F]undamental changes of attitude, new disciplines, revised legal structures, unaccustomed limitations on activity, are all necessary if we are to plan. This amounts, in fact, to the abandonment, finally, of *laissez faire*. It amounts, practically, to the abolition of "business."

This is what planning calls for.⁷⁰

In return, Tugwell promised, central planning will right capitalist society's major wrongs, which he enumerated as "violent contrasts of well-being," "irrational allotments of individual liberty," and "unconstrained exploitation of human and natural resources."⁷¹

In his book *The Industrial Discipline and the Governmental Arts*, Tugwell promised the additional benefit of greater efficiency in production. He speculated – without citing any evidence – that the coal mining industry, for example, could reduce its inputs ("mines, plants, machinery, and marketing facilities") by "something over one-third" and yet produce the same volume of coal, thus achieving much lower average cost. More generally,

If there were a system of planning, it is therefore said, which allocated to specific industries capital sufficient to produce an amount of goods which would be taken by consumers at the price possible with capacity production, and no more, prices could be lower than they are at present.⁷²

Here Tugwell seemed to overlook or deny that profit-seeking coal producers would already have jumped at any clear opportunity to produce the same output from fewer inputs. A firm's owners are generally eager to produce the amount of goods that will be taken by consumers at cost-covering prices, and no more, and to adjust the firm's capacity to the level just suitable

⁶⁹ Rexford G. Tugwell, "The Theory of Occupational Obsolescence," *Political Science Quarterly* 46 (June 1931), p. 224.

⁷⁰ Tugwell, "Principle of Planning," p. 76.

⁷¹ *Ibid.*

⁷² Tugwell, *Industrial Discipline*, p. 204.

for that volume of production (taking seasonal and random sales variations into account).

To Tugwell, new production technologies meant that industrial “integration” to achieve greater scale, in the form of monopolies or cartels, was now more efficient than competition. The relentless economic logic of integration was overcoming all the efforts of antitrust authorities to stop it:

[A]lthough so inevitable a movement could not be stopped, it could be hampered and distorted. We might have had some such form of organization as the German cartel system if we had not set out so determinedly, forty years and more ago, to enforce competition.⁷³

Rather than fight efficient consolidation, government should take control of consolidated industries to ensure their operation in the public interest.

In Tugwell’s vision, national economic planning would simply be Taylorism on a larger scale:

National planning can be thought of – in a technical rather than a political sense – merely as a normal extension and development of the kind of planning which is a familiar feature of contemporary business.⁷⁴

That firms can plan production at the factory level, and that cartels can plan production at the industry level, Tugwell believed, gives us “enough evidence to make it clear that no technical difficulty bars the way to national planning.”⁷⁵ In thus viewing economy-wide planning as a simple extension of factory-floor planning, Tugwell overlooked Mises’s important point (see [Chapter 2](#)) that a factory is a small island of planning in a sea of market prices. By referring to prices of inputs and outputs the entrepreneur can assess the factory’s profitability, its relative efficiency at turning costly resources into more valuable products. Economy-wide central planning, by contrast, aims to abolish the guidance of production by market prices. Tugwell appears to have been completely innocent of the problems with socialist calculation that Mises had identified twelve years earlier. Granted, Mises’s 1920 and 1922 arguments were little known in the English-language economics literature before translations of his works appeared in 1935 and 1936 respectively.⁷⁶

⁷³ Tugwell, “Principle of Planning,” p. 77.

⁷⁴ *Ibid.*, p. 76.

⁷⁵ *Ibid.*, p. 78.

⁷⁶ Reviewing “The Nature and History of the Problem” and “The Present State of the Debate” in 1935, Hayek (in Hayek, ed., *Collectivist Economic Planning* [London: Routledge, 1935]) cited only four pre-1932 publications in English. R. G. Hawtrey, *The Economic Problem* (London: Longmans, 1926), did not cite Mises or clearly identify the calculation problem

Although Tugwell offered no argument as to why we need not rely on the price system, he was quite sure that we need not rely on the profit motive for the management of factories. Modern economists, and here he cited his colleague Gardiner Means,⁷⁷ are

aware of the growing separation of ownership and control; and from this it seems a fairly simple inference that since profits go only to owners, control is effectively separated from its assumed motive.... The truth is that if industry could not run without this incentive it would have stopped running long ago.⁷⁸

And good riddance, Tugwell felt: There are better ways to allocate investment funds than by the lure of profits:

The hope of making them induces dangerous adventures, more speculative than productive; and the uses to which they are put are a constant menace to general security.... There is no doubt that the hope of great gains induces enterprise of a sort; and if these are disestablished, a certain kind of enterprise will disappear. The question is whether we cannot well afford to dispense with it. It seems credible that we can. Industries now mature can be seen to operate without it; and new ones might be created and might grow from sheer workman-like proclivities and without the hopes of speculative gains.⁷⁹

Tugwell's suggestion that the spirit of workmanship should replace the profit motive strongly echoed the ideas of Veblen. Neither author really grappled with the problem of how the spirit of workmanship could substitute for the profit-and-loss test in evaluating whether a factory's output was worth its cost. Economists studying the business corporation in more

but did recognize the incentive problems facing a socialist economy that proposes, as Hawtrey (p. 339) put it, to "substitute a functionary for an independent trader." I could not find a copy of John Bowen, *Conditions of Social Welfare* (London: C. W. Daniel, 1926), which as Hayek noted was (and remains) little known. Fred M. Taylor's brief essay "The Guidance of Production in a Socialist State," *American Economic Review* 19 (March 1929), pp. 1–8, did not mention Mises or recognize the calculation problem. W. C. Roper, *The Problem of Pricing in a Socialist State* (Cambridge, MA: Harvard University Press, 1931) did cite Mises's 1922 book and grapple with its central argument about the pricing problem but would have been easy for Tugwell to overlook, as a recent and slim (71 pp.) volume published as a prize-winning undergraduate essay.

⁷⁷ Gardiner C. Means, "The Separation of Ownership and Control in American Industry," *Quarterly Journal of Economics* 46 (November 1931), pp. 68–100. Subsequently Adolph A. Berle and Gardiner C. Means, *The Modern Corporation and Private Property* (New York: Macmillan, 1932), in many respects following Veblen, famously elaborated the idea of "the separation of ownership and control."

⁷⁸ Tugwell, "Principle of Planning," p. 79.

⁷⁹ *Ibid.*, p. 82.

recent years have argued, as against the Berle-Means hypothesis of the separation of managerial control from ownership and the profit motive, that owners pursue cost-effective methods for aligning the managers' incentives with the owners' profit motive. Managers of mature firms who actually try to operate without regard to profits will, when they produce subnormal returns, find themselves ousted by shareholders.⁸⁰ And good riddance, from the point of view of ensuring that scarce resources are employed in ways that yield outputs of the greatest value to consumers.

The echo of Tugwell's critique of the profit motive may be heard in Roosevelt's first inaugural address:

The money changers have fled from their high seats in the temple of our civilization. We may now restore that temple to the ancient truths. The measure of the restoration lies in the extent to which we apply social values more noble than mere monetary profit.⁸¹

To abolish what he regarded as wasteful and dangerous profit-seeking, Tugwell recommended "an implemented scheme for planning production" and controlling investment. In the planned future, he declared, speculative profit-seekers like Henry Ford will not be allowed to decide independently where to risk investment funds. They will have to get the approval of an investment planning board:

New industries will not just happen as the automobile industry did; they will have to be foreseen, to be argued for, to seem probably desirable features of the whole economy before they can be entered upon.

Historian Ralph Raico has dryly commented that this was a vision of "innovation by bureaucratic committee."⁸²

THE INSTITUTIONALIST LEGACY

The leading inheritor of the institutionalist legacy after 1950 was the gadfly economist and best-selling author John Kenneth Galbraith (1908–2006). Galbraith's career included several stints in important government positions. During the Second World War he was a price-control czar. As a U.S. State

⁸⁰ Two well-known studies are Michael C. Jensen and William H. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure," *Journal of Financial Economics* 3 (1976): 305–60; and Eugene F. Fama and Michael C. Jensen, "Separation of Ownership and Control," *Journal of Law and Economics* 26 (1983): 301–25.

⁸¹ Roosevelt, "First Inaugural Address."

⁸² Ralph Raico, "FDR – the Man, the Leader, the Legacy, Part 11," *Freedom Daily* (February 2001), available online at <http://www.fff.org/freedom/0201e.asp>.

Department official overseeing economic policy for occupied Germany in 1948, Galbraith rejected the idea of reviving the German economy through decontrol of prices and allocations (see [Chapter 9](#)). In *A Theory of Price Control* (1952) he defended policies that would dispense with a free price system. In *American Capitalism: The Concept of Countervailing Power* (1952) Galbraith argued that stronger labor unions would provide “countervailing power” to big business, which previously had uncontested control over the economy. Galbraith foresaw that the future American economy would be jointly managed by big business, big labor, and federal government, a recipe reminiscent of the NRA’s corporativism. In *The Affluent Society* (1958), building on Veblen’s ideas, Galbraith contended that business creates inauthentic consumer wants through advertising where none previously existed. As U.S. Ambassador to India 1961–3, Galbraith supported India’s adoption of central planning (see [Chapter 10](#)). In *The New Industrial State* (1967), developing the implication Tugwell drew from Berle and Means, Galbraith argued that large corporations were no longer run in the interest of shareholder profit but were now run in the interest of management security and comfort. The policy response recommended by Galbraith, as by Tugwell before him, was a larger role for government in economic planning.

The Great Depression and Keynes's *General Theory*

John Maynard Keynes corresponded with George Bernard Shaw for decades after meeting him at Cambridge. Shaw was not only a famous playwright, but also an amateur economist (see [Chapter 7](#)). In January 1935 Keynes wrote to Shaw:

To understand my state of mind, however, you have to know that I believe myself to be writing a book on economic theory which will largely revolutionize – not, I suppose, at once but in the course of the next ten years – the way the world thinks about economic problems.¹

Keynes's forecast was remarkably accurate. His characterization of his project as “a book on economic theory,” however, was a slightly misleading. Despite the eventual publication title of *The General Theory of Employment, Interest, and Money*, he was – as many commentators have noted – very much writing a tract for the times.

Keynes considered it his duty to tackle current issues. In a memorial for Alfred Marshall written in 1924, Keynes declared that the day of the theoretical economic treatise had passed. The modern economist must aim for current policy relevance: “Economists must leave to Adam Smith the glory of the quarto, must pluck the day, fling pamphlets into the wind, write always *sub specie temporis* and achieve immortality by accident, if at all.” In much the same spirit his biographer Roy Harrod attributed to Keynes the belief that “progress in economics would lie in the application of theory to practical problems. His recipe for the young economist was to know his Marshall thoroughly and read his *Times* every day carefully.”²

¹ John Maynard Keynes, *The Collected Writings of J. M. Keynes*, vol. XIV, ed. Donald Moggeridge (Cambridge: Cambridge University Press, 1973), p. 492.

² Keynes, “Alfred Marshall, 1842–1924,” *Economic Journal* (1924), in Keynes, *Collected Writings*, vol. X, p. 199; R. F. Harrod, *The Life of John Maynard Keynes* (London: Macmillan, 1951), p. 324.

Keynes's success over the next three decades at revolutionizing the way the world thinks was celebrated by *Time* magazine in 1965, when it put Keynes's portrait on the cover and titled its cover story "The Economy: We Are All Keynesians Now."³ The story applauded the apparently successful use of Keynesian macroeconomic thinking by the economists, on leave from academia, who were then formulating policy for the administration of Lyndon Johnson:

Keynes and his ideas, though they still make some people nervous, have been so widely accepted that they constitute both the new orthodoxy in the universities and the touchstone of economic management in Washington....

In Washington the men who formulate the nation's economic policies have used Keynesian principles not only to avoid the violent cycles of prewar days but to produce a phenomenal economic growth and to achieve remarkably stable prices.... Basically, Washington's economic managers scaled these heights by their adherence to Keynes's central theme: the modern capitalist economy does not automatically work at top efficiency, but can be raised to that level by the intervention and influence of the government.... In Washington the ideas of Keynes have been carried into the White House by such activist economists as Gardner Ackley, Arthur Okun, Otto Eckstein (all members of the President's Council of Economic Advisers), Walter Heller (its former chairman), M.I.T.'s Paul Samuelson, Yale's James Tobin and Seymour Harris of the University of California at San Diego.⁴

Keynes's influence on policy was most famously confirmed when the next U.S. President, Richard Nixon, told an interviewer in 1971: "I am now a Keynesian in economics."⁵

THE DEPTHS OF THE DEPRESSION

After nearly four years of sharp decline, with industrial production falling by more than half, the U.S. economy hit bottom in early 1933. It struggled upward for the next four years, but in 1937 began to decline sharply again. From May 1937 to May 1938 industrial production fell by one-third. A second recovery then began. By September 1939 production was back to its September 1929 level – but had lost a decade of normal growth. Economists Harold L. Cole and Lee E. Ohanian have reported: "Real gross domestic

³ Available online at <http://www.time.com/time/covers/0,16641,19651231,00.html>.

⁴ "The Economy: We Are All Keynesians Now," *Time* (31 December 1965), available online at <http://www.time.com/time/magazine/article/0,9171,842353-1,00.html>. For more on the influence of Keynesian fiscal policy advice see [Chapter 15](#).

⁵ Richard Reeves, *President Nixon: Alone in the White House* (New York: Simon & Schuster Paperbacks, 2001), p. 295.

product per adult, which was 39 percent below trend at the trough of the Depression in 1933, remained 27 percent below trend in 1939.” Not until 1942 did real output finally return to its pre-Depression trend line.⁶

Why was the economy languishing through the 1930s? A number of economic historians have cited government policies that hampered market adjustments and thereby delayed recovery. Thomas E. Hall and J. David Ferguson’s 1998 account of “perverse economic policies” included the Smoot-Hawley tariff of 1930 and the tax hike of 1932 under the Hoover administration; followed by the National Industrial Recovery Act (NIRA) and the Agricultural Adjustment Act (AAA) of 1933–5, the payroll tax of the Social Security Act of 1935, and other tax hikes in 1933, 1934, 1935, and 1936 under Roosevelt.⁷ Other authors have emphasized that Hoover tried to prop up nominal wages in the face of shrinking nominal demand, and Roosevelt redoubled the effort in the National Labor Relations Act (NLRA) of 1935, policies that priced workers out of jobs.⁸ Cole and Ohanian, studying the NIRA and the NLRA, have found that “New Deal cartelization policies are an important factor in accounting for the failure of the economy to recover back to trend.”⁹

Milton Friedman and Anna J. Schwartz famously emphasized perverse monetary policy in explaining the depth and persistence of the Great Depression. In their account, the initial decline was so deep because the money supply contracted by one-third between 1930 and 1933. Prices and wages that did not immediately decline in the same proportion, because of natural or policy-enhanced “stickiness,” were now too high to clear product and labor markets, creating unsold inventories and unemployment. They pointed out that the Federal Reserve, having taken over superintendence of the banking system from private clearinghouse associations, failed to do what the clearinghouses had done in previous crises to shore up the banks, stem bank runs, and prevent such a large monetary contraction. Later Fed policy, in their account, actively stifled the recovery. In 1936 and 1937

⁶ Frank G. Steindl, “What Ended the Great Depression? It Was Not World War II,” *Independent Review* 12 (Fall 2007), pp. 180–1; Harold L. Cole and Lee E. Ohanian, “New Deal Policies and the Persistence of the Great Depression: A General Equilibrium Analysis,” *Journal of Political Economy* 112 (August 2004), pp. 779–81.

⁷ Thomas E. Hall and J. David Ferguson, *The Great Depression: An International Disaster of Perverse Economic Policies* (Ann Arbor: University of Michigan Press, 1998), pp. 71–3, 105, 122–6, 128–9, 144–5, 147.

⁸ Lowell Gallaway and Richard Vedder, *Out of Work: Unemployment and Government in Twentieth-Century America* (New York: Holmes and Meier, 1993).

⁹ Cole and Ohanian, “New Deal Policies,” p. 779.

the Fed, observing commercial banks' large excess reserves (which banks chose to hold so as to be prepared to meet runs and other deposit outflows), imposed higher required reserve ratios on bank deposits to "mop up liquidity." To reestablish their desired *free* reserves (*required* reserves being largely useless for meeting deposit outflows), banks reduced the amount of deposits they created per dollar of reserves. At about the same time, in 1936–8, the U.S. Treasury and Fed together were "sterilizing" gold inflows from abroad, that is, offsetting the expansionary effect the inflows would normally have on bank reserves. Together these policies shrank the U.S. money supply again, causing the recovery to go into reverse.¹⁰

KEYNES'S DIAGNOSIS

These retrospective accounts by economic historians emphasize government policy mistakes that deepened the initial decline and hindered recovery. Keynes offered a very different account: The market economy had collapsed on its own, had become trapped in a vicious circle, and could not free itself. It needed government help. Keynes's biographer Robert Skidelsky has commented: "It was the collapse of America which started him thinking that perhaps there was a fundamental flaw in the capitalist system, which meant that even very successful economies could suddenly collapse."¹¹

Keynes sketched out a "vicious circle" argument in his December 1930 essay "The Great Slump of 1930." If a nervous public saves its income by hoarding money, rather than spending it on consumption goods or saving it in a form that finances capital investment, he argued, then both consumer-goods industries and capital-goods industries (factory and housing construction, machine-making, mineral extraction) will suffer losses. Banks will become reluctant to lend and businesses will become reluctant to invest. The problem will snowball:

If the public are reluctant to buy [consumption goods, or to finance investment] . . . , then . . . *all* classes of producers will tend to make a loss; and general unemployment will ensue. By this time a vicious circle will be set up, and, as a result of actions and reactions, matters will get worse and worse until something happens to turn the tide. . . . If, then, I am right, the fundamental cause of the trouble is the lack of new enterprise due to an unsatisfactory market for

¹⁰ Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States* (Princeton, NJ: Princeton University Press, 1963), *chs.* 7, 9.

¹¹ *Commanding Heights*, Lord Robert Skidelsky interview. Available online at http://www.pbs.org/wgbh/commandingheights/shared/minitext/int_robertskidelsky.html.

capital investment . . . [T]he reluctant attitude of lenders has become matched by a hardly less reluctant attitude on the part of borrowers.¹²

Keynes went on to advise that a change in monetary policy could jump-start the world economy, although instead of “jump-start” he used a different automotive metaphor. He suggested that the capitalist economy was having “magneto” (alternator) trouble, as against the socialist idea that the entire automobile should be replaced.¹³ He proposed that the Federal Reserve, the Bank of England, and the Bank of France “should join together in a bold scheme to restore confidence to the international long-term loan market; which would serve to revive enterprise and activity everywhere, and to restore prices and profits, so that in due course the wheels of the world’s commerce would go round again.”¹⁴

In an essay published a month later, Keynes omitted the distinction between troublesome hoarding and the helpful kind of saving that finances capital investment. Now saving as such was a problem:

There are to-day many well-wishers of their country who believe that the most useful thing which they and their neighbors can do to mend the situation is to *save* more than usual. . . . Now, in certain circumstances all this would be quite right, but in the present circumstances, unluckily, it is quite wrong. It is utterly harmful and misguided – the very opposite of the truth. For the object of saving is to release labour for employment on producing capital-goods such as houses, factories, roads, machines, and the like. But if there is a large unemployed surplus already available for such purposes, then the effect of saving is merely to add to this surplus and therefore to increase the number of the unemployed. Moreover, when a man is thrown out of work in this way or any other way, his diminished spending power causes further unemployment amongst those who would have produced what he can no longer afford to buy. And so the position gets worse and worse in a vicious circle.

To underscore his argument about how saving would reduce employment, Keynes put a number on the size of the effect:

The best guess I can make is that whenever you save five shillings, you put a man out of work for a day. . . . After all, this is only the plainest common sense. For if you buy goods, someone will have to make them. And if you do not buy goods, the shops will not clear their stocks, they will not give repeat orders, and some one will be thrown out of work.¹⁵

¹² Keynes, “The Great Slump of 1930,” in Keynes, *Essays in Persuasion* (New York: W. W. Norton, 1973), pp. 142–4. Keynes made the argument in more technical terms in his *Treatise on Money* (London: Macmillan, 1930), published the same month.

¹³ Keynes, “Great Slump,” p. 139.

¹⁴ *Ibid.*, p. 146.

¹⁵ Keynes, “Economy: (i) Saving and Spending [January 1931],” in Keynes, *Essays in Persuasion*, pp. 151–2. Nowhere in the essay did Keynes spell out any statistical estimates or calculations to support the “five shillings” number.

As he had before, Keynes recommended public works spending to boost demand for labor and goods.¹⁶ Note that, in Keynes's account here, additional saving does nothing to promote additional investment spending by reducing the interest rate facing investment borrowers.

Paul Krugman, in his Introduction to a recent edition of *The General Theory*, has usefully summarized its diagnosis of depression and policy message in four bullet points. To quote them:

- Economies can and often do suffer from an overall lack of demand, which leads to involuntary unemployment.
- The economy's automatic tendency to correct shortfalls in demand, if it exists at all, operates slowly and painfully.
- Government policies to increase demand, by contrast, can reduce unemployment quickly.
- Sometimes increasing the money supply won't be enough to persuade the private sector to spend more, and government spending must step into the breach.

Krugman commented that "these ideas weren't just radical when Keynes proposed them; they were very nearly unthinkable,"¹⁷ but in fact by 1936 many leading and nonradical economists, even relatively free-market economists at the University of Chicago, had proposed government spending on public works programs to relieve the unemployment of the early Great Depression.¹⁸

Keynes's views that the collapse and nonrecovery reflected a flaw in the market economy, and that government spending to boost demand was needed for recovery, stood in sharp contrast to F. A. Hayek's contemporaneous views that the collapse reflected a flaw in previous (overly expansive) monetary policy, and that the economy would best recover left alone (given a monetary policy framework to prevent excessive shrinkage of the money stream). In Hayek's theory the crisis was the result of credit expansion

¹⁶ Ibid., p. 153. Keynes likewise advocated public works, financed by deficit spending, in a series of four newspaper essays reprinted as John Maynard Keynes, *The Means to Prosperity* (London: Macmillan, 1933).

¹⁷ Paul Krugman, "Introduction," in John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (New York: Palgrave Macmillan, 2007).

¹⁸ See J. Ronnie Davis, *The New Economics and the Old Economists* (Ames: Iowa State University Press, 1971), and William J. Barber, *From New Era to New Deal: Herbert Hoover, the Economists, and American Economic Policy, 1921–1933* (New York: Cambridge University Press, 1985). For a brief review of the deficit-spending proposals by Chicago economists in the early 1930s see Richard M. Ebeling, "Monetary Central Planning and the State, Part 22: The Chicago School Economists and the Great Depression," *Freedom Daily* (October 1998), available online at <http://www.fff.org/freedom/1098c.asp>.

having allowed investment to outrun voluntary saving, so government policies to augment consumption demand at the expense of saving would only deepen the crisis. Friedman and Schwartz later offered a third diagnosis, namely that the recession would have been routine except for the collapse of the money stock after 1929. Their retrospective recovery prescription focused on restoring the level of the money stock.

DID KEYNES “INVENT MACROECONOMICS”?

Keynes’s approach to explaining the Depression introduced novel concepts to the study of the aggregate economy. But it is an exaggeration to say, as Skidelsky has said, that “Keynes was the real inventor of macroeconomics. Concepts we take for granted today, like gross domestic product, the level of unemployment, the rate of inflation, all to do with general features of the economy, were invented by him.” In fact Irving Fisher at the turn of the century had developed the Quantity Theory of Money, based on work by Simon Newcomb and earlier economists.¹⁹ Fisher’s theory included a broad concept of the economy’s aggregate real transactions, for which real gross domestic product is a more readily measured proxy. Fisher sought to explain the rate of inflation and the effect of inflation on nominal interest rates. Keynes did not invent these concepts. Later in his interview Skidelsky acknowledged the point: “Before Keynes, there was a theory of money, the quantity theory of money, which maybe you could say is the start of macroeconomics.”²⁰ Years before Fisher, as we noted in [Chapter 3](#), there were the British theorists of the mid-nineteenth century – the Banking, Currency, and Free Banking schools – who sought to account for fluctuations in the levels of aggregate output and unemployment. Still earlier there were discussions of output as a whole by Malthus, Ricardo, and Say, considered later in the present chapter.

Skidelsky continued: “Keynes’s was a monetary theory of production. He incorporated the theory of money into a theory of production and showed how what people did with their money could affect the level of production.” There was in the *General Theory*, however, no theory of production in the usual sense of an analysis of how the economy transforms raw materials and labor into final goods and services. That monetary disturbances – shocks to money supply or demand – could cause fluctuations in the level of production was not a new idea. Fisher emphasized it, as did Hayek and Mises,

¹⁹ We discuss Newcomb, Fisher, and the quantity theory in Chapter 12.

²⁰ *Commanding Heights*, Skidelsky interview.

as did other monetary theorists in the 1920s and early 1930s like Dennis Robertson and Ralph Hawtrey, as did the mid-nineteenth-century writers.

WHAT WAS NEW IN KEYNES

What *was* new in *The General Theory* was the disappearance of inherited past investment (working through multiperiod production as analyzed by Jevons, Böhm-Bawerk, and Wicksell) from the theory of what determines the volume of consumable output. All focus was now on current-period investment and other current expenditures (consumption, government spending, net purchases by the rest of the world) as determinants of current output. As Keynes summarized his new conception in the preface to the 1939 French edition:

It is shown that, generally speaking, the actual level of output and employment depends, *not on the capacity to produce* or on the pre-existing level of incomes, but on the *current* decisions to produce which depend in turn on *current* decisions to invest and on *present* expectations of current and prospective consumption.²¹

In place of the intertemporal Hayekian triangle, the textbook rendering of Keynes's view of the determination of current income in a closed national economy is a "circular flow" as in [Figure 5.1](#).

In the textbook Keynesian income-expenditure model based on the circular flow concept, current expenditure E (the sum of household purchases C + business investment purchases I + government purchases G) determines the equilibrium current output of goods and services Y . The level of expenditure (and thus equilibrium income) depends on the share of income that goes to consumption spending, what Keynes called the "propensity to consume." In Keynes's own summary:

Moreover, as soon as we know the propensity to consume and to save (as I call it), that is to say the result for the community as a whole of the individual psychological inclinations as to how to dispose of given incomes, we can calculate what level of incomes, and therefore what level of output and employment, is in profit-equilibrium with a given level of new investment; ...²²

Graphically, as seen in [Figure 5.2](#) (familiar to generations of undergraduate economics students), equilibrium obtains where the aggregate

²¹ John Maynard Keynes, *The General Theory of Employment Interest and Money*, ed. Elizabeth Johnson and Donald Moggridge, vol. VII in *The Collected Writings of John Maynard Keynes* (London: Macmillan, 1973), p. xxxiii. Emphasis added.

²² Ibid.

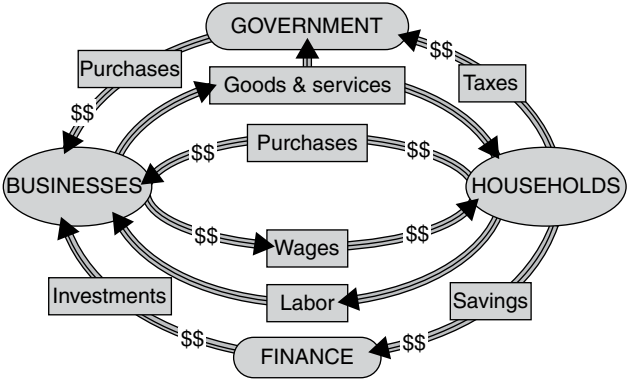


Figure 5.1. The Keynesian Circular Flow.

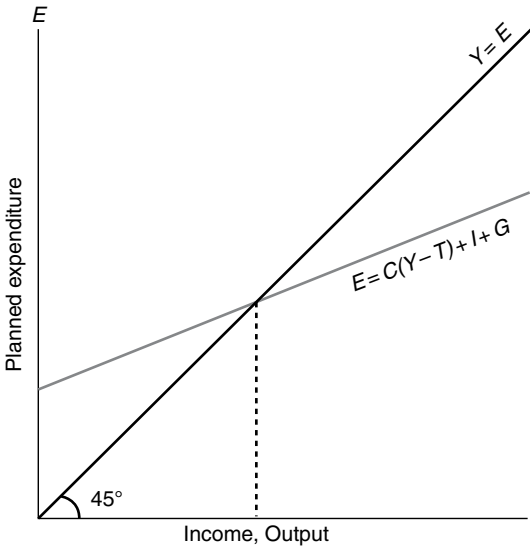


Figure 5.2. Keynesian Income-Expenditure Equilibrium.

expenditure line crosses the 45° line (the set of points meeting the equilibrium condition $Y = E$). The expenditure line is drawn to reflect the assumption that C is a linear function of $Y - T$ (after-tax income), while I and G are “given” or independent of Y or C).²³

²³ According to Paul Krugman, “Introduction,” this diagram was introduced by Paul Samuelson’s textbook *Economics* (1948).

THE PARADOX OF THRIFT

Keynes treated saving as a leakage from the circular flow. An attempt by the public to save more will diminish total current expenditure, thereby reducing the level of current output, finally leaving unchanged the amount successfully saved out of shrunken incomes. This result – in Keynes's words, “an increased propensity to save will *ceteris paribus* contract incomes and output” – has become known as the “paradox of thrift.”²⁴ The channel through which savings go to fund investment spending had completely disappeared, so there was no possibility of the interest rate equilibrating saving with investment, as it did in the interest theory of Böhm-Bawerk, Wicksell, Fisher, or Hayek.²⁵

Keynes's implicit assumption is that saved funds leave the circular flow, as if they all go under the saver's mattress. Saved funds do not go into the banks or mutual funds, and thereby back into the circular flow via loans that fund investment or consumption spending, nor into direct securities purchases that fund investment. In analyzing equilibrium “with a *given* level of new investment,” Keynes treated the level of investment as independent of the level of saving. In Keynes's analysis, if the propensity to save out of income increases, with the level of investment given, it is not the interest rate but income that must adjust downward, bringing the quantity saved back down to where it started, to reequat savings to the given level of investment. In [Figure 5.3](#) income begins at Y_1 but declines to Y_2 when the consumption schedule shifts downward from C_1 to C_2 . That the change in equilibrium Y is even larger than the initial shift in expenditure (here a shift in C , but it works equivalently for a shift in I or G) is known as the “multiplier effect.” We discuss the multiplier further in [Chapter 15](#) in connection with fiscal policy debates.

In *The General Theory* Keynes suggested that, at anything less than full employment, saving is even bad for economic growth. Investment depends positively on anticipated consumption spending and therefore “up to the point where full employment prevails, the growth of capital depends not at all on a low propensity to consume [high propensity to save] but is, on the contrary, held back by it.”²⁶ Paul Samuelson soon formalized the dynamic effect as the “principle of acceleration,” according to which investment falls in

²⁴ Keynes, *General Theory* (1973 ed.), p. xxxiii.

²⁵ On the contrast between Keynes and the Wicksellians on interest theory, see Axel Leijonhufvud, “The Wicksell Connection,” in Leijonhufvud, *Information and Coordination* (New York: Oxford University Press, 1981).

²⁶ Keynes, *General Theory* (1973 ed.), pp. 372–3.

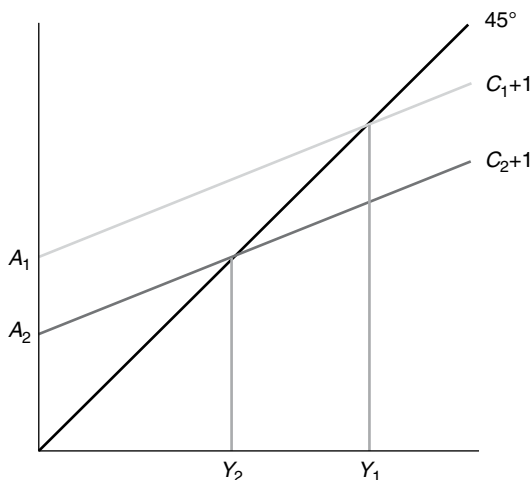


Figure 5.3. Reduced Consumption Spending (Falling to C_2 from C_1) Has a Multiple Effect on Income (Which Falls to Y_2 from Y_1).

response to a decline in consumption spending, and consequently amplifies the decline via the multiplier effect. With the right assumed response functions, a regular oscillation of Y – a sine-wave business cycle – is the result.²⁷

THE LIQUIDITY-PREFERENCE THEORY OF INTEREST

If the interest rate does not clear the market for loanable funds, what role does it play? In Keynes's *General Theory*, it clears the market for money balances:

[I]t is the function of the rate of interest to preserve equilibrium, not between the demand and the supply of new capital goods, but between the demand and the supply of money, that is to say between the demand for *liquidity* and the means of satisfying this demand.²⁸

In Keynes's theory interest is not the price of intertemporal exchange, not a reward for waiting or deferring consumption, but a reward for parting with

²⁷ Paul A. Samuelson, "A Synthesis of the Principle of Acceleration and the Multiplier," *Journal of Political Economy* 47 (1939), pp. 786–97. On the contributions of Alvin Hansen and Roy Harrod to Samuelson's model, see Daniele Besomi, "Harrod, Hansen, and Samuelson on the Multiplier-Acceleration Model: A Further Note," *History of Political Economy* 35 (2003), pp. 305–22. If the parameters are slightly off, however, the swings in the economy get bigger and bigger without limit or else diminish toward nothing.

²⁸ Keynes, *General Theory* (1973 ed.), p. xxxiv. Emphasis in the original.

liquidity. In standard monetary theory, equilibrium between the demand and supply of money is ultimately maintained by adjustment in the purchasing power of the monetary unit (or measured inversely, in the price level) in a closed economy, or by gold flows that alter the money stock for a small open economy within an international gold standard (see [Chapters 11 and 12](#)). Keynes left it unclear how he thought the price level was determined. Keynesian economics eventually adopted the Phillips Curve in its search for a model of price-level determination.

HAYEK VERSUS KEYNES'S GENERAL THEORY

Roger Garrison's restatement of Hayek's theory usefully emphasizes three major contrasts between Keynes's *General Theory* and Hayek's *Prices and Production*.²⁹ The first involves the relationship of consumption to investment. In Hayek's approach, the fundamental relationship is a trade-off. In Garrison's words, "consumption and investment represent *alternative* uses of the economy's resources." A community that grows corn can either eat a given bushel of its current crop or plant that bushel to produce future crops. Full employment of resources implies a trade-off, a "production possibilities frontier," along which more consumption means less investment and vice-versa. Accordingly an increase in saving (reduction in consumption spending) frees resources for an increase in investment. As Keynes had once aptly put it, saving serves "to release labour [from employment in consumer-goods industries] for employment on producing capital-goods such as houses, factories, roads, machines, and the like." The economy moves southeast along the frontier shown in [Figure 5.4](#). An increase in credit unwarranted by voluntary saving, however, drives the economy temporarily beyond the frontier, where it cannot stay.

In Keynes's theory, by contrast, consumption C and investment I are (again in Garrison's words) "*additive* components of private-sector spending" ($C + I + G = Y$) with no reliable tendency toward a position on the full-employment frontier. The economy typically moves along a path at a right angle to the frontier, as between the "recession" and "overheated economy" points in [Figure 5.4](#). An increase in savings (reduction in consumption) causes a reduction in aggregate expenditure, pulling the economy inside (or further inside) the frontier, where it can linger indefinitely with below-full employment of resources. To economists taught by *The General Theory* to think of consumption and investment normally moving in the

²⁹ Roger Garrison, *Time and Money* (London: Routledge, 2001).

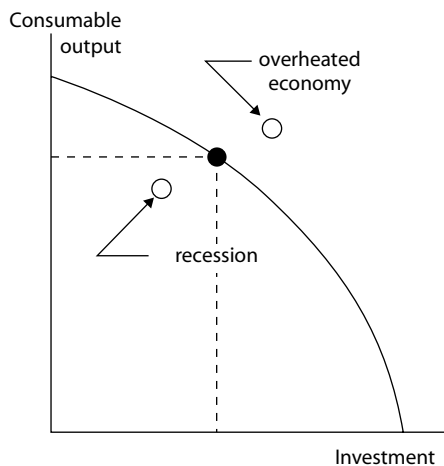


Figure 5.4. The Production Possibilities Frontier between Consumption and Investment.
Source: Garrison (2001).

same direction, Hayek's statement of a trade-off – that “an increase in the demand for consumption goods will tend to decrease rather than increase the demand for investment goods” – became a puzzling and even “seemingly paradoxical thesis.”³⁰

The second major contrast involves the role of the interest rate. In Hayek's theory, the interest rate clears the market for loanable funds, equating the quantity supplied (savings including the earnings retained by business firms) with the quantity demanded (principally for investment). Loanable funds theory was standard in pre-Keynesian macroeconomics, especially as developed by Keynes's contemporary and critic Dennis H. Robertson (1890–1963). A loanable funds diagram does appear in *The General Theory* – it is in fact the only diagram in the book – but only to indicate explicitly what Keynes was *discarding* from the standard toolbox. Keynes instead offered the “liquidity preference” theory in which the interest rate does not serve to coordinate saving and investment.

Hayek naturally objected to the absence of any market mechanism for coordinating saving and investment, a feature already present in Keynes's *Treatise on Money*. In reply to Hayek's criticism of the *Treatise*, Keynes

³⁰ Tom Wilson, “Capital Theory and the Trade Cycle,” *Review of Economic Studies* 7 (June 1940), p. 169, reacting to the quote from Hayek, *Profits, Interest, and Investment* (London: Routledge, 1939), p. 3.

acknowledged that his theory was not the standard loanable funds theory in which the interest rate adjusts to clear the market between saving and investment:

My analysis is quite different from this; as it necessarily must be, since, in my view, saving and investment (as I define them) can get out of gear without any change on the part of the banking system from "neutrality" as defined by Dr. Hayek, merely as a result of the public changing their rate of saving or the entrepreneurs changing their rate of investment, there being no automatic mechanism in the economic system (as Dr. Hayek's view would imply there must be) to keep the two rates equal, provided [Hayek's condition for banking system neutrality] that the effective quantity of money [MV] is unchanged.³¹

Hayek, responding in the same issue of the journal *Economica*, charged Keynes with failing to appreciate the most basic economic role of the interest rate:

Mr. Keynes' assertion that there is no automatic mechanism in the economic system to keep the rate of saving and the rate of investing equal ... might with equal justification be extended to the more general contention that there is no automatic mechanism in the economic system to adapt production to any shift in demand. I begin to wonder whether Mr. Keynes has ever reflected upon the function of the rate of interest in a society where there is no banking system.³²

The third major contrast is between Hayek's focus on the changing structure of capitalistic production during the business cycle, and Keynes's focus instead on labor markets. Hayek's was a capital-based macroeconomics. Keynes's dispensed with attention to capital or time-consuming multistage production, implicitly believing that little of importance would be lost by treating production as instantaneous.

KEYNES VERSUS "CLASSICAL" ECONOMICS

Keynes saw his own innovation as having provided a theory of the overall size of output and employment, by contrast to the standard microeconomic focus on explaining the allocation of resources within a fully employed economy of given size. In the preface to the 1936 German edition of *The*

³¹ John Maynard Keynes, "The Pure Theory of Money: A Reply to Dr. Hayek," *Economica* 34 (November 1931), p. 393. Emphasis in the original.

³² F. A. von Hayek, "A Rejoinder to Mr. Keynes," *Economica* 34 (November 1931), p. 401.

General Theory he framed this as break from the “classical” approach of Alfred Marshall:

[Marshall’s] theory of output and consumption as a whole, as distinct from his theory of the production and distribution of a *given* output, was never separately expounded. . . . [H]is immediate successors and followers have certainly dispensed with it and have not, apparently, felt the lack of it. . . . I taught these doctrines myself and it is only within the last decade that I have been conscious of their insufficiency. In my own thought and development, therefore, this book represents a reaction, a transition away from the English classical (or orthodox) tradition.³³

As we saw in our discussion of pre-Keynesian schools of thought in [Chapter 3](#), Marshallian microeconomic theory did not exhaust English economics. There was an English tradition of business cycle theorizing going back to the 1830s, and before that to Henry Thornton in 1802.³⁴ The business cycle theorists tried to explain how monetary or real disturbances would cause variations in output as a whole, that is, tried to explain why the economy alternated between periods of prosperity (with full or overfull employment of workers and machines) and periods of depression (with widespread unemployment). Keynes himself recognized that earlier economists had offered theories of depression. In *The General Theory*, he took note of the “underconsumption” theories of the eighteenth-century writers William Petty and Bernard Mandeville, of Thomas Malthus in the early nineteenth century, and of J. A. Hobson in the late nineteenth to early twentieth centuries. (On Hobson’s theory see the previous chapter.) Late in Hobson’s career, Keynes wrote a note to Hobson assuring him that he would be “remembered as a pathbreaker in economic theory,” while his critics would be forgotten.³⁵ Underconsumption theories contained the equivalent of the paradox of thrift, derived from their similar treatment of saving as a leakage.

Given these two long-standing theoretical traditions, it is inaccurate to say, as Skidelsky has said, repeating Keynes’s own caricature of the history of economics, that before Keynes

³³ John Maynard Keynes, *General Theory* (1973 ed.), p. xxv.

³⁴ Henry Thornton, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* [1802], ed. with an introduction by F. A. Hayek (London: George Allen and Unwin, 1939).

³⁵ Fiona Maclachlan, “J. A. Hobson and the Economists,” *Journal of Post Keynesian Economics* 25 (Winter 2002–3), p. 298. Maclachlan notes that Keynes also “wrote a scathing review of one of Hobson’s books and . . . was responsible for the rejection of a least one submission [by Hobson] to the *Economic Journal*.”

the question of the quantity of output was never discussed. It was always assumed that economies were at full employment. Keynes was the first person to show that it was possible for the output of an economy to be below its potential, and the classical economists had never seen how this could be possible.³⁶

Keynes differed from the underconsumptionists in that his own theory worried about too little aggregate demand ($C + I + G$) rather than specifically about too little consumption (C). And unlike Hobson's theory, Keynes's theory was not tied to the proposition that workers were being systematically underpaid.

MALTHUS AND SISMONDI VERSUS RICARDO AND SAY ON UNDERCONSUMPTION

One of the earliest economists to formulate an underconsumption theory was Thomas Robert Malthus (1766–1834). Malthus was trying to explain the unemployment and depression in Britain that followed the inflationary years of the Napoleonic wars. Malthus began from the accounting identity that the value of output = the value of total factor payments = wages + rents + profits. Here “rents” were payments to landowners, while “profits” included both returns to the use of capital equipment and residual returns to capitalist-entrepreneurs. He worried that even if workers spend all their wages, and capitalists reinvest all their profits, landowners may not spend all their rents (which, according to classical theory, were destined to grow ever larger with rising population density). Underconsumption due to underspending of rents would result in an excess supply or “general glut” of produced commodities. Not all output could be sold at cost-recovering prices. Malthus thought it obvious that general gluts could be observed in the short run, even if market forces eventually eliminate them:

[The] tendency, in the natural course of things, to cure a glut or scarcity, is no more a proof that such evils have never existed, than the tendency of the healing processes of nature to cure some disorders without assistance from man, is a proof that such disorders never existed.³⁷

A contemporary French-Swiss critic of classical economics, Jean-Charles-Léonard Simonde de Sismondi (1773–1842), argued a similar position. Beginning from the assumption that sale of last year's revenue provides the

³⁶ Robert Skidelsky, *Commanding Heights* interview.

³⁷ T. R. Malthus, *Definitions in Political Economy* [1827], new ed. with notes by John Cazenove (London: Simpkin and Marshall, 1853), pp. 73–4.

income that purchases this year's output, Sismondi found any increase in this year's output over last year's problematic: the predetermined income will be too small to purchase the additional output. Workers and capitalists in industries with unsold goods will be ruined, and finding new employments will be a painful process. Sismondi accordingly denied the classical doctrine that increased production was always beneficial, particularly citing the case where the introduction of productive new machinery displaces workers:

Let us take some account of the obstacles and the friction of the social mechanism. And what do we see? ... Far from being always beneficial, machinery produces useful results only when its introduction is preceded by an increased revenue, and consequently the possibility of giving new work to those displaced.... Let us beware of this dangerous theory of equilibrium which is supposed to reestablish itself automatically.... It is true a certain kind of equilibrium is reestablished in the long run, but only after a frightful amount of suffering.³⁸

The classic theorist David Ricardo (1772–1823) answered Malthus. Beginning with the same accounting identity that the value of total output = the value of total factor payments, Ricardo combined it with the proposition that market forces insure that saving = investment, because the financial system channels saving into business loans. Ricardo (1820) thereby concluded that the demand for consumer goods (which equals total factor payments – saving) = the supply of consumer goods (which equals total output – investment). Unsold goods cannot then reflect a general glut, but only the wrong mix of goods:

Mistakes may be made, and commodities not suited to the demand may be produced – of these there may be a glut; they may not sell at their usual price; but then this is owing to the mistake, and not to the want of demand for productions.... Whoever is possessed of a commodity is necessarily a demander, either he wishes to consume the commodity himself, and then no purchaser is wanted; or he wishes to sell it, and purchase some other thing with the money, which shall either be consumed by him, or be made instrumental to future production. The commodity he possesses will obtain him this or it will not. If it will, the object is accomplished, and his commodity

³⁸ Jean Simonde di Sismondi, *New Principles of Political Economy*, vol. 1 (1819), pp. 220–1, as quoted by Charles Gide and Charles Rist, *A History of Economic Doctrines*, 2nd English ed., trans. R. Richards (Boston: D. C. Heath, 1948), p. 193–4. Gide and Rist (pp. 190, 191) offer the verdict that it is difficult to imagine “anything more confused than the reasonings by which [Sismondi] attempts to demonstrate the possibility of a general crisis of overproduction.... McCulloch, Ricardo, and Say victoriously upheld [the contrary] view against Sismondi.”

has found a market. If it will not what does it prove? that he has not adapted his means well to his end, he has miscalculated.... What I wish to impress on the readers mind is that it is at all times the bad adaptation of the commodities produced to the wants of mankind which is the specific evil, and not the abundance of commodities. Demand is only limited by the will and power to purchase. Whoever has commodities has the power to consume, and as it suits mankind to divide their employments, individuals will produce one commodity with a view to purchase another; ...³⁹

Keynes thought that Malthus had made “powerful and unanswerable attacks on the great Ricardo,” and saluted his “brilliant intuitions” regarding the “insufficiency of effective demand.”⁴⁰ But he noted in reference to the Malthus-Ricardo debate:

For, since Malthus was unable to explain clearly (apart from an appeal to the facts of common observation) how and why effective demand could be deficient or excessive, he failed to provide an alternative construction; and Ricardo conquered England as completely as the Holy Inquisition conquered Spain.⁴¹

Ricardo's proposition that the aggregate demand for goods must equal the aggregate supply of goods had already been enunciated by the French economist Jean-Baptiste Say (1762–1832). It became known as “Say's Law of Markets” or simply “Say's Law.” Say was a follower of Adam Smith and an advocate of laissez-faire and free trade. His key work was the *Treatise on Political Economy*, first published in 1803. In 1804, the French emperor Napoleon Bonaparte – whose trade policies were protectionist – demanded that Say retract the antiprotectionist parts of the *Treatise*. Say refused, and Bonaparte had the book banned. A second edition appeared only in 1814 after Bonaparte had fallen from power. Say went on to write *Letters to Malthus* (1821) to answer the underconsumptionist case. In 1831 he was granted the first chair of economics in France. Keynes listed Say, along with Say's Law's later exponents Ricardo and John Stuart Mill, among his targets when criticizing “orthodox” economists in the second and third chapters of *The General Theory*.

³⁹ David Ricardo, *Notes on Malthus's Principles of Political Economy* [1820], vol. 2 of *The Works and Correspondence of David Ricardo*, ed. Piero Sraffa (Indianapolis: Liberty Fund, 2004), pp. 305–6. A detailed account of Malthus-Ricardo debate is provided by F. Cameron MacLachlan, “The Ricardo-Malthus Debate on Underconsumption: A Case Study in Economic Conversation,” *History of Political Economy* 31 (Fall 1999), pp. 563–74.

⁴⁰ J. M. Keynes, “The Commemoration of Thomas Robert Malthus (III),” *Economic Journal* 45 (June 1935), pp. 230–4.

⁴¹ Keynes, *General Theory* (1973 ed.), p. 32.

SAY'S LAW OF MARKETS

Say founded his Law on the two-sidedness of trade. Consider international trade in a two-country world, personifying the two countries as traders. If Brazil's only use for British currency or sterling-denominated credits is to buy British goods, then Britain buys Brazilian goods only by selling British goods to Brazil. British purchases of Brazilian goods are matched by Brazilian purchases of British goods. Or as Say put it: "Products are paid for with products." In a multicountry world Britain may pay any single trading partner in gold or silver money, which the partner uses to buy from a third country. But for Britain the gold or silver it pays is either a domestic product itself (if Britain has gold or silver mines) or is acquired by sales of domestic goods. Wrote Say:

Should it be objected; that this foreign produce may have been bought with specie, I answer, specie is not always a native product, but must have been bought itself with the products of native industry; so that, whether the foreign articles be paid for in specie or in home products, the vent for national industry is the same in both cases.⁴²

By "vent for national industry" Say meant that, no matter how the British pay, the rest of the world's purchases of British goods will match Britain's purchases of foreign goods (including specie).

Likewise, within a domestic economy, supply of X implies an equal-valued demand for goods other than X. If a shoemaker wants to buy hats, he makes shoes and trades them for hats (whether directly using barter or indirectly via money). His production and sale of shoes finances or "creates" his demand for hats. If he produces few shoes, then he can demand few hats (or other goods). Thus Say wrote: "It is production which opens a demand for products.... [T]he general demand for products is brisk in proportion to the activity of production." Say invited his reader to consider a merchant "in a remote corner of Poland": even if he had no competitors, such a merchant "could sell but little, because little was produced" in that corner to provide potential local customers with the means to purchase his goods.⁴³

The common capsule summary of Say's Law, invoked by Keynes, is that "supply creates its own demand." But this does not mean that supply of shoes

⁴² Jean-Baptiste Say, *A Treatise on Political Economy; or the Production, Distribution, and Consumption of Wealth*, ed. Clement C. Biddle, trans. C. R. Prinsep from the 4th French ed. (Philadelphia: Lippincott, Grambo & Co., 1855), p. 139.

⁴³ *Ibid.*, pp. 133, 139, 137.

creates demand for shoes. It means that supply of shoes creates demand for everything *other than* shoes. Supply of hats likewise creates demand for everything other than hats. It follows that, summing over all goods, supply of goods creates demand for goods: "society in the aggregate is a larger purchaser, in proportion to its means of purchasing."⁴⁴ Say accordingly denied that there could be a general glut: "I do not see how the products of a nation in general can ever be too abundant, for each such product provides the means for purchasing another."⁴⁵

Say's Law implies that production (not demand) is the limit to prosperity:

The success of one branch of commerce supplies more ample means of purchase, and consequently opens a market for the products of all the other branches; on the other hand, the stagnation of one channel of manufacture, or of commerce, is felt in all the rest.⁴⁶

If this were not true, Say reasoned, all-round economic growth would not be conceivable:

Otherwise, how could it be possible that there should now be bought and sold in France five or six times as many commodities, as in the miserable reign of Charles VI? Is it not obvious, that five or six times as many commodities must have been produced, and that they must have served to purchase one or the other?⁴⁷

Accordingly, a government that wishes to promote prosperity should promote the supplying of goods, not the demanding of goods:

The same principle leads to the conclusion, that the encouragement of mere consumption is no benefit to commerce; for the difficulty lies in supplying the means, not in stimulating the desire of consumption; and we have seen that production alone, furnishes those means. Thus, it is the aim of good government to stimulate production, of bad government to encourage consumption.⁴⁸

It is obvious why Keynes, who after 1930 saw the encouragement of consumption (discouragement of saving) as necessary for the restoration of prosperity, could not let Say's Law go unchallenged.

⁴⁴ Ibid., p. 144.

⁴⁵ Say, *Treatise* (1st ed., 1803), as quoted in J. B. Say, *An Economist in Troubled Times: Writings Selected and Translated* by R. R. Palmer (Princeton, NJ: Princeton University Press, 1997), p. 76.

⁴⁶ Jean-Baptiste Say, *Treatise on Political Economy*, ed. C. c. Biddle., p. 135.

⁴⁷ Ibid., p. 133.

⁴⁸ Ibid., p. 139.

AN IMPORTANT CAVEAT

The validity of Say's Law is subject to an important limitation: If money is not categorized as one of the set of "goods," then the impossibility of a general glut of goods requires that the public is not trying to accumulate (or decumulate) money. Say argues that when you trade goods for money, you accept the money only for the sake of buying goods:

For what, in point of fact, do you want the money? Is it not for the purchase of raw materials or stock for your trade, or victuals for your support? Wherefore, it is products that you want, and not money. . . . Sales cannot be said to be dull because money is scarce, but because other products are so.⁴⁹

But this is an overstatement: sales in general *can* be dull in the short run if there is an *excess demand for money*. If your money balances are below the level you desire to hold, you will not want to spend all the money you receive from sales but instead want to put some of it aside to build your money balances back up the desired level. If such behavior is widespread (and it will be when, as in the early Great Depression in the United States for example, the overall money supply has unexpectedly and sizably dropped), the efforts to sell more goods and buy fewer goods will put downward pressure on prices in general. In the long run, the problem is resolved by price adjustments. A fall in the general level of prices allows an unchanged stock of dollars to satisfy the previously unmet demand to hold purchasing power in the form of dollar balances by making each dollar purchase more. But in the short run, before prices have adjusted, sales are dull.

Say thought that the price level wouldn't need to adjust because any excess demand for money would be satisfied (in an economy on an international gold or silver standard) by the local creation of money-substitutes and by an inflow of money:

In such cases, merchants know well enough how to find substitutes for the product serving as the medium of exchange or money: and money itself soon pours in, for this reason, that all produce naturally gravitates to that place where it is most in demand.⁵⁰

Say here seemed to take for granted that a sufficient increase in the real stock of money is nearly immediate, but it need not be so. Prices may be "sticky." In the short run sales of goods can suffer. An inflow of money is ruled out for a country that is not on an international monetary standard,

⁴⁹ Ibid., p. 133. The same argument appears in the long quote from Ricardo earlier.

⁵⁰ Ibid., p. 134.

for example a country using its own national fiat money. In that case the price level must bear the burden of downward adjustment to an excess demand for money and any large adjustment may take substantial time.

KEYNES'S CRITIQUE OF SAY

Keynes rejected Say's Law not on the grounds that a temporarily unsatisfied demand for money is possible but on the more sweeping grounds that nothing matches producers' and consumers' plans. That is, he rejected Ricardo's claim that market forces equate savings with investment. He wrote:

From the time of Say and Ricardo the classical economists have taught that supply creates its own demand; ... Contemporary thought is still deeply steeped in the notion that if people do not spend their money in one way they will spend it in another. ... Those who think in this way are deceived They are fallaciously supposing that there is a nexus which unites decisions to abstain from present consumption with decisions to provide for future consumption; whereas the motives which determine the latter are not linked in any simple way with the motives which determine the former.⁵¹

Here again Keynes denied that the interest rate works to coordinate production over time with planned consumption, or investment with savings.

Keynes further argued that Say's Law must be invalid because it is inconsistent with what Keynes believed to be the observable fact of "involuntary" unemployment. He distinguished such unemployment from "frictional" unemployment (a temporary spell between being laid off, or entering the labor force, and accepting a new job) and "voluntary" unemployment (due to quitting). According to Keynes the "classical" theory, as represented by Pigou, recognized only frictional and voluntary unemployment, overlooking involuntary unemployment. Keynes defined "involuntary" unemployment as existing when "there are men unemployed who would be willing to work at less than the existing real wage."⁵² He considered the situation common, referring to what he considered "the fact that the population generally is seldom doing as much work as it would like to do on the basis of the current wage."⁵³ In other words, there is chronically an excess supply of workers at the going market wage, but for some reason the unemployed workers are not bidding down the going wage so that the market may clear at a lower wage. The wage is "sticky" in the downward direction. Keynes advised that

⁵¹ Keynes, *General Theory* (1973 ed.), pp. 18, 20–1.

⁵² *Ibid.*, p. 289.

⁵³ *Ibid.*, p. 7.

such workers typically would, however, accept a lower *real* wage, via a rise in consumer prices:

[I]t may be the case that within a certain range the demand of labour is for a minimum money-wage and not for a minimum real wage ... Whilst workers will usually resist a reduction of money-wages, it is not their practice to withdraw their labour whenever there is a rise in the price of wage-goods [i.e. a rise in the consumer price index].⁵⁴

Keynes believed that American workers in 1932 were involuntarily unemployed in his sense, that is, that they would have accepted lower real wages in the form of the same dollar wages with a higher consumer price level. His remedy for such unemployment was to raise consumer prices by pumping up nominal aggregate demand.

Hayek later commented that such a remedy would work only when higher consumer prices were unexpected. Once workers came to anticipate rising consumer prices they would hold out for higher money-wages. To Hayek, Keynes's short-run policy focus was irresponsible:

It is not surprising that Mr. Keynes finds his views anticipated by the mercantilist writers and gifted amateurs: concern with the surface phenomena has always marked the first stage of the scientific approach to our subject. But it is alarming to see that after we have once gone through the process of developing a systematic account of those forces which in the long run determine prices and production, we are now called upon to scrap it, in order to replace it by the short-sighted philosophy of the business man raised to the dignity of a science. Are we not even told that, "since in the long run we are all dead," policy should be guided entirely by short-run considerations?⁵⁵

WHAT THE GENERAL THEORY OFFERED

In summary, the depression theory of *The General Theory* offered:

- An income-expenditure theory of current output, with Y determined by $C + I + G$
- A "liquidity preference" theory of the interest rate
- A sticky-wage theory of unemployment.

Unlike earlier monetary and business-cycle theories, the *General Theory* did *not* offer:

⁵⁴ Ibid., pp. 8–9.

⁵⁵ F. A. Hayek, *The Pure Theory of Capital* [1941] (Chicago: University of Chicago Press, 2007), p. 368.

- A theory of the price level
- A theory of how the business cycle unfolds over time
- A theory of the long-run path of output or employment
- A theory of investment, production, or growth.

Unlike later “New Keynesian” theories, it did not offer:

- A microeconomic rationale for wage stickiness.

DEPRESSION THEORY VERSUS BUSINESS CYCLE THEORY

Underconsumption theories offer at most only half of a cycle: a theory of depression, or a persistent underemployment state, but not of the boom or the boom-bust dynamics.⁵⁶ Not much is heard about underconsumption theories when the economy is doing well. Paul Krugman, choosing the Austrian economist Gottfried Haberler's survey *Prosperity and Depression* (1936) to represent pre-Keynesian business cycle theory, has argued that Keynes made a wise choice in offering a theory of depression instead of a cycle theory:

Like most macroeconomic theorists before Keynes, Haberler believed that the crucial thing was to explain the economy's dynamics, to explain why booms are followed by busts, rather than to explain how mass unemployment is possible in the first place. And Haberler's book, like much business cycle writing at the time, seems more preoccupied with the excesses of the boom than with the mechanics of the bust. . . . Instead, Keynes saw it as his job to explain why the economy sometimes operates far below full employment.

. . . Rather than getting bogged down in an attempt to explain the dynamics of the business cycle – a subject that remains contentious to this day – Keynes focused on a question that could be answered. And that was also the question that most needed an answer: given that overall demand is depressed – never mind why – how can we create more employment?⁵⁷

Hayek, by contrast, objected exactly to the “never mind why” approach. He considered it an irresponsible search for a superficial fix:

I cannot help regarding the increasing concentration on short-run effects . . . not only as a serious and dangerous intellectual error, but as a betrayal of the main duty of the economist and a grave menace to our civilisation.⁵⁸

⁵⁶ We will discuss in [Chapter 12](#) Milton Friedman's view that empirically this focus is appropriate, that recession and recovery is all that can be historically observed – there are no booms above trend – and hence all that needs to be explained.

⁵⁷ Krugman, “Introduction.”

⁵⁸ Hayek, *Pure Theory of Capital*.

WHY KEYNES'S THEORY CAUGHT ON

Despite the reservations and objections of orthodox (often older) economists, Keynes's theory quickly caught on among younger economists and completely eclipsed Hayek's theory.⁵⁹ Only eight years after the publication of *The General Theory*, one economist marveled at its success:

The rapid and widespread adoption of the Keynesian theory by contemporary economists, particularly by those who at first were highly critical, will probably be recorded in the future history of economic thought as an extraordinary happening. The fact that the new theory seems to be opposed to the traditional doctrine in almost every respect makes its great success all the more astonishing.⁶⁰

Many observers have credited the professional success of the new Keynesian doctrine to the optimism it offered, the promise that something could be done to speed recovery from the Great Depression. Skidelsky has commented that Keynes "gave people hope that unemployment could be cured" without abandoning a free society (in contrast to the path taken by Russia, Italy, or Germany), "and that was the great appeal of *The General Theory* for many people, including many of the young economists." John Kenneth Galbraith reminisced that, returning to Harvard after studying under Keynes in England, "There was this breath of hope and optimism, and I came back from Cambridge to find a whole group of people here who had also read *The General Theory*."⁶¹

Hayek's and Robbins's contrasting policy recommendation, to let output and employment recover on their own as bankruptcies and layoffs released workers and machines to find more sustainable employments, was regarded by many as a counsel of despair. One commentator in 1933 put the contrast between Hayek and Keynes this way:

The deflationists, anxiously looking to a more distant future, warn us of terrors to come from an expansive policy. Must we choose between this

⁵⁹ Reservations and objections to Keynesian theory by various economists, mostly older than Keynes, were collected in Henry Hazlitt, ed., *Critics of Keynesian Economics* (Princeton, NJ: D. Van Nostrand, 1960). Important contemporary critiques by two younger economists (both like Hayek born in 1899) were provided by W. H. Hutt, *The Theory of Idle Resources* (London: Jonathan Cape, 1939), and Arthur W. Marget, *The Theory of Prices*, vol. 2 (New York: Prentice-Hall, 1942).

⁶⁰ Otto von Mehring, "Some Problems of Methodology in Modern Economic Theory," *American Economic Review* 34 (March 1944), p. 87.

⁶¹ Robert Skidelsky, *Commanding Heights* interview; John Kenneth Galbraith, *Commanding Heights* interview, available online at http://www.pbs.org/wgbh/commandingheights/shared/minitextlo/int_johnkennethgalbraith.html.

depression and the next, resigning ourselves to the thought that we start dying the moment we are born? Mr. Keynes ... plumps firmly for doing something now.⁶²

Milton Friedman, looking back in a 1996 interview, essentially agreed. Academic economists had flocked to Keynes because he offered a faster way out of the depression, as contrasted to the "gloomy" prescription of Hayek and Robbins that we must wait for the economy to self-correct:

At the London School of Economics the dominant view in 1932 and 1933 ... was that the Depression was a necessary cure for the ills that had been built up before and should be allowed to run its course and correct itself. So it was a very gloomy view. When Keynes came along and said here is a simple explanation of the Depression and a way to cure it, he attracted converts.⁶³

In a recent working paper, economists Matthew N. Luzzetti and Lee E. Ohanian of UCLA have similarly attributed the initial success of *The General Theory* to the fact that it "was published during the Great Depression, when there was a search for alternative frameworks for understanding economic crises." They attribute its subsequent growth as a research program during the 1940s and 1950s to "econometric developments in the area of simultaneous equations" that made Keynesian macroeconomics into "a quantitative enterprise," and to its apparent fit with the postwar economic data: "macroeconomic time series through the 1960s seemed to conform qualitatively to patterns discussed in the General Theory."⁶⁴

KEYNESIAN ECONOMICS AFTER KEYNES: THE IS-LM MODEL

The intellectual victory of *The General Theory* was promoted by energetic young economists who formalized its message for a professional audience and popularized it for students and laymen. Among the most influential of the student-oriented works was Alvin H. Hansen's *A Guide to Keynes*.⁶⁵ Especially noteworthy among the formalizations was John Hicks's 1937 article "Mr. Keynes and the Classics: A Suggested Interpretation," which offered

⁶² A. T. K. Grant, review of *The Means to Prosperity* by J. M. Keynes and *End the Crisis!* by Felix Somary, *International Affairs* 12 (July 1933), p. 548.

⁶³ Quoted by Robert Hetzel, "The Contributions of Milton Friedman to Economics," Federal Reserve Bank of Richmond *Economic Quarterly* (Winter 2007), p. 9.

⁶⁴ Matthew N. Luzzetti and Lee E. Ohanian, "The General Theory of Employment, Interest, and Money after 75 Years: The Importance of Being in the Right Place at the Right Time," NBER Working Paper 16631 (December 2010).

⁶⁵ Alvin H. Hansen, *A Guide to Keynes* (New York: McGraw-Hill, 1953).

a tractable diagrammatic version of Keynes's *General Theory*.⁶⁶ Together the Hansen and Hicks contributions brought forth the version of Keynesian macroeconomics that continues to be taught today as the IS-LM model. The IS-LM model simultaneously determines output and the interest rate. The IS curve (for Investment-Saving equilibria) shows the set of points consistent with the income = expenditure condition, or $Y = C + I + G$, with C and I depending on both the interest rate and real income. The LM curve (for Liquidity preference – Money supply equilibria) shows the set of points at which demand for money, which depends on both the interest rate and income, equals the given supply of money. The intersection of the curves shows the unique (output, interest rate) pair consistent with both equilibrium conditions.

Later interpreters of Keynes have doubted that IS-LM truly captured Keynes's message. Axel Leijonhufvud influentially argued in *On Keynesian Economics and the Economics of Keynes* (1968) that Keynes had a sophisticated theory of coordination failure that is not captured by IS-LM. Coordination failure, however, is a concept less easily illustrated on a classroom blackboard. Allan H. Meltzer, in *Keynes's Monetary Theory: A Different Interpretation* (1988) argued that the IS-LM model failed to communicate Keynes's view that unless the rate of interest is close to zero, output and employment are too low.⁶⁷

Regardless of how faithful it was to Keynes, the IS-LM model took on a life of its own and became the workhorse Keynesian policy analysis tool. Even Milton Friedman adopted its apparatus in the early 1970s to explain his non-Keynesian views to a Keynesian professional audience.⁶⁸ The IS-LM model still populates intermediate macroeconomics textbooks and the economics Graduate Record Exam, though it has been largely supplanted in the doctoral-level curriculum by newer approaches. The readiness with which it yields at least some kind of answer to practical if-then macroeconomic questions has given it enduring influence in policy circles.

INFLATION AND THE PHILLIPS CURVE

Keynes suggested that, in an economy below full employment, increases in demand would reduce unemployment but not bid up wages or prices.

⁶⁶ J. R. Hicks, "Mr. Keynes and the 'Classics'; A Suggested Interpretation," *Econometrica* 5 (April 1937), pp. 147–59.

⁶⁷ Axel Leijonhufvud, *On Keynesian Economics and the Economics of Keynes* (New York: Oxford University Press, 1968); Allan H. Meltzer, *Keynes's Monetary Theory: A Different Interpretation* (Cambridge: Cambridge University Press, 1988).

⁶⁸ Milton Friedman et al., *Milton Friedman's Monetary Framework: A Debate with His Critics*, ed. Robert J. Gordon (Chicago: University of Chicago Press, 1974).

Not until full employment was reached would wage and price inflation result. A later construction called the “Phillips curve” rounded off the corner, proposing a continuous trade-off between inflation and unemployment with diminishing returns in either direction. The curve was named after A. W. Phillips, who in a 1958 article had plotted statistical evidence of negative relationships between the annual unemployment rate and the annual growth rate of money-wages over various subperiods of 1861–1957.⁶⁹

Keynesian economists of the 1960s, having no better way to explain the inflation rate, built a Phillips-curve trade-off into their models. In their interpretation of the Phillips curve, rising prices were caused by increasing tightness in the labor market (demand for labor exceeding supply), which bid up wages, thereby costs of production, thereby prices. Paul Samuelson and Robert Solow in 1960 viewed the Phillips curve as a menu of policy options: policy makers could achieve a lower unemployment rate by generating a higher inflation rate, or lower inflation by allowing higher unemployment. Wise policy meant choosing the least-bad point on the curve.⁷⁰

The view of the Phillips curve as a stable and exploitable trade-off between inflation and unemployment seemed to fit U.S. data between 1958 and 1969. But reliance on the curve was shaken in the 1970s when rising inflation occurred in combination with *rising* unemployment. We will return to this episode in [Chapter 12](#).

“POST KEYNESIAN” AND “NEW KEYNESIAN” ECONOMICS

The mainstream Keynesian economics promoted by Hicks, Samuelson, and many others between 1937 and the 1970s – what Samuelson labeled the “neoclassical synthesis” – sought to meld orthodox neoclassical microeconomics (analysis founded on optimization and equilibrium concepts in the tradition of Walras or Marshall) with the heterodox macroeconomic ideas of Keynes’s *General Theory*. Keynes’s followers today have branched in two directions. One group, the “Post Keynesian” economists, prefers the heterodox Keynes unalloyed with neoclassical microeconomics. Post Keynesians are influenced not only by the more radical parts of *The General Theory* but also in various degrees by institutionalism, Marxism, and the “Neo-Ricardian” economics developed in the 1950s by Hayek’s old critic Piero Sraffa and his followers. Research in the *Journal of Post Keynesian Economics*

⁶⁹ A. W. Phillips, “The Relation between Unemployment and the Rate of Change of Money Wages in the United Kingdom, 1861–1957,” *Economica* 25 (November 1958), pp. 283–99.

⁷⁰ Paul Samuelson and Robert Solow, “Analytical Aspects of Anti-Inflation Policy,” *American Economic Review* 50 (May 1960), pp. 177–94.

emphasizes such themes as radical uncertainty, the central bank's inability to control the stock of money, and the fragility of the financial system.

The "New Keynesian" economists, on the other hand, seek to incorporate Keynesian-type concepts like sticky prices and coordination failure into models having otherwise neoclassical microeconomic foundations. Their research program distinguishes itself from the approach of the "new classical" critics of Keynesian economics, led by Robert Lucas, Thomas Sargent, and Robert J. Barro. The new classicals beginning in the 1970s rejected sticky prices and non-market-clearing as *ad hoc* modeling devices, too loose in their logic, in favor of more disciplined Walrasian models in which markets always clear. Gregory Mankiw explains the New Keynesian outlook by contrast:

New Keynesian economists, however, believe that market-clearing models cannot explain short-run economic fluctuations, and so they advocate models with "sticky" wages and prices. New Keynesian theories rely on this stickiness of wages and prices to explain why involuntary unemployment exists and why monetary policy has such a strong influence on economic activity.⁷¹

New Keynesian research attempts to ground sticky prices more rigorously in microeconomic rationales like the costs of adjusting prices. Putting the "Keynesian" label on a recognition of price stickiness can be misleading, however. Sticky wages and prices were also an element of Hayek's explanation for why recessions do not end instantly, and likewise of the "old monetarist" cycle theories of Clark Warburton and Milton Friedman (see [Chapter 12](#)). A New Keynesian can, as Mankiw does, closely resemble a monetarist in emphasizing monetary over fiscal policy and in generally favoring market control of the commanding heights, at least outside of money and macroeconomic policy. Other New Keynesians take a more heterodox approach, building models in which the macroeconomy has multiple equilibria, and may get trapped in an inferior equilibrium (suffer a "coordination failure"), once again requiring an activist government policy to pull it out.

⁷¹ N. Gregory Mankiw, "New Keynesian Economics," in Henderson, *Concise Encyclopedia of Economics*, available online at <http://www.econlib.org/library/Enc/NewKeynesianEconomics.html>.

The Second World War and Hayek's *Road to Serfdom*

In the spring of 1933, the German economist Wilhelm Röpke found two SS agents at his door. He later recalled that these particular members of Adolf Hitler's paramilitary elite were men "of thorough 'bruiser' type." An outspoken classical liberal, Röpke had been declared an "enemy of the people" and dismissed from his teaching post at Marburg University for giving anti-Nazi speeches. Other professors, similarly dismissed as part of the Nazis' program to dominate the universities with antiliberal ideology, had promised to switch sides or keep quiet in order to get their old jobs back. Röpke had refused. Hitler's government had now turned to overt intimidation. When the SS agents explained to Röpke that he should be on the Nazis' side, he rebuked them with "scorn and indignation." As soon as they departed, he realized that he needed to leave the country immediately.¹

THE NAZIS COME TO POWER

Adolf Hitler, leader of the National Socialist German Workers (Nazi) Party, had assumed the German chancellorship in January 1933. Hitler initially headed a coalition government, but soon consolidated power in his own hands. A biographer reports that Hitler was "wholly ignorant" of economics.² Hitler's choice of economic policies appears to have been guided by no principle other than to enhance his government's power. The same can be said of the Italian Fascist leader Benito Mussolini.

In an article written soon after he fled Germany for Istanbul, Röpke grouped German National Socialism together with Italian fascism under

¹ Wilhelm Röpke, *The Solution of the German Problem* (New York: G. P. Putnam's Sons, 1947), pp. 59–60.

² Ian Kershaw, *Hitler, 1889–1936: Hubris* (New York: Norton, 2000), p. 448.

the general heading of fascist economics. Attempting to find a consistent logical thread among fascist policies, Röpke wrote in evident exasperation:

[I]t is a task of tremendous difficulty to define clearly the essentials of Fascist Economics ... one might be tempted to give up the task as hopeless and to dismiss it as economic Dadaism. ... [I]t is just this lack of rational cohesion which perhaps more than anything else, is characteristic of Fascism. ... Fascism sails along with a minimum of intellectual freight – and is proud of it.³

Dadaism was an art movement whose proponents claimed to reject all artistic principles. Unlike the Nazis, the Dadaists had a sense of humor.⁴

Despite the incoherence of exactly what it stood *for*, National Socialism clearly rejected classical liberalism and its precept of a free market economy. Röpke noted that among the anticapitalist doctrines of the day there was communism, and then there was the “military anticapitalism” of Italy and Germany, “the anticapitalism that has the Fascist flavor, in other words, that anticapitalism that corresponds to illiberalism in the political field.” Röpke dismissed as partisan “distortions and misrepresentations” the Marxist and democratic-socialist line that National Socialism was a reactionary defense of an “unmitigated capitalism.”⁵ In a 1933 memo F. A. Hayek similarly insisted: “National Socialism is a genuine socialist movement, whose leading ideas are the final fruit of the antiliberal tendencies which have been steadily gaining ground in Germany since the later part of the Bismarckian era.”⁶ Hayek thus viewed Nazism as an offspring of the state-socialist doctrines promoted by the German historical school of economists.

Unlike communism, Röpke observed, fascism “wants no revolutionary changes of the economic and social structure of society.” Economic

³ Wilhelm Röpke, “Fascist Economics,” *Economica* (New Series) 2 (February 1935), p. 86.

⁴ The French Dadaist Marcel Duchamp, for example, notoriously produced a work (*L.H.O.O.Q.*, 1919) in which he had scribbled a goatee and moustache on the Mona Lisa. Duchamp’s whimsical art objects included two with financial themes: a hand-lettered check for \$115 to his dentist purportedly drawn on “The Teeth’s Loan & Trust Company Consolidated” of New York (*Tzank Check*, 1919) and a numbered set of lithographed and collaged coupon bonds featuring a photo – by the Dadaist collaborator Man Ray – of Duchamp’s head covered in lather, and affixed with a legal document stamp. The bonds purported to be issued by a company to finance the artist’s roulette-gambling system (*Monte Carlo Bond*, 1924). Incidentally, Bond #1 sold at auction in 2010 for a little more than \$1 million. For discussion see Olav Velthuis, “Duchamp’s Financial Documents: Exchange as a Source of Value,” *Tout-Fait: The Marcel Duchamp Studies Online Journal* 1/2 (May 2000), available online at http://www.toutfait.com/issues/issue_2/Articles/velthuis.html.

⁵ *Ibid.*, pp. 94, 86, 88.

⁶ F. A. Hayek, “Nazi-Socialism,” in *The Road to Serfdom: Text and Documents, The Definitive Edition*, ed. Bruce Caldwell (Chicago: University of Chicago Press, 2007), pp. 245–8.

policy in fascist Italy and Nazi Germany amounted to ad hoc “interventionism plus collectivist phraseology,” which “leads, in practice, to a heavily monopolistic-interventionistic society adorned by terminological and phraseological ornaments, with an extensive government control of prices and capital investments and large ‘socialisation of losses.’”⁷ The journalist Walter Lippmann in 1936 similarly noted that “the fascist version of the collectivist principle” had never been spelled out in scholarly detail, having been “hastily improvised since the World War” by political schemers.⁸ Although Mussolini's and Hitler's interventions followed no coherent economic philosophy, we will see that they did follow an in-built interventionist policy dynamic. That dynamic shaped fascist and Nazi economic policies into systems of comprehensive state control over the commanding heights.

THE INTERVENTIONIST DYNAMIC IN NAZI ECONOMIC POLICY

Two years before Hitler took power the German government had imposed exchange controls, restricting permission to trade domestic for foreign currency, in order to avoid officially devaluing the Reichsmark. Hitler too refused to devalue. Foreign exchange rationing led to government controls on trade. The controls expanded in scope under Hjalmar Schacht, Hitler's economics minister for 1934–7. The Nazi regime's “New Plan” of 1934 brought government control of all import and export transactions, together with industrial cartelization and public works projects.⁹ Schacht was removed from office when, in response to disappointing results, he recommended reversing the policy course. He was replaced by Herman Göring, who oversaw the introduction of a central Four-Year Plan for the economy. Schacht was later imprisoned by the Reich for his involvement in a plot to assassinate Hitler.

The Third Reich's centralized agricultural policy and import quotas led to shortfalls in food production and sharp price increases. Hitler made these self-inflicted problems a pretext for invading Europe, declaring in a memo: “We are overpopulated and cannot feed ourselves from our own resources.... The final solution lies in extending the living space of our

⁷ Röpke, “Fascist Economics,” p. 91.

⁸ Walter Lippmann, *The Good Society* [1936] (New York: Grosset & Dunlap, 1943), p. 57.

⁹ Hans Willgerodt, “Planning in West Germany: The Social Market Economy,” in A. Lawrence Chickering, ed., *The Politics of Planning: A Review and Critique of Centralized Economic Planning* (San Francisco: Institute for Contemporary Studies, 1976), p. 61.

people and/or the sources of its raw materials and foodstuffs.”¹⁰ Launching a war enabled Hitler to retain popular support and power despite the damage that his economic policies were doing to the German economy.

In a 1948 postmortem analysis of the Nazi economy, the German economist Walter Eucken emphasized full-employment policy (rather than exchange controls) as the engine driving the steady increase in the degree of central government control over the German economy. He wrote:

After 1936 the German economy came more and more under central direction and administration. This was not the result of a conscious effort of policy to create a new form of economic organisation. It was rather a result produced accidentally. It was the full-employment policy which started the movement, and it was the implementation of this policy which led step by step towards a centrally administered economy (“Zentralverwaltungswirtschaft”).¹¹

Eucken explained that Hitler’s full-employment policy called for large public works projects. The most famous of these was the construction of the *autobahns*. To finance spending on the projects, the German government printed more paper marks, diluting their value. Prices began rising throughout the economy.¹² To put a lid on the price inflation, the government intervened further into the economy, imposing a general price freeze in 1936. The price controls resulted in widespread shortages of consumer goods: buyers with abundant marks could not find sellers willing to sell at prices frozen artificially low. As a result:

Prices ceased to give expression to the scarcity of goods and services on the markets. This state of affairs gave rise to the creation of a central administrative apparatus to direct the economy, to supervise foreign trade, to allocate the most important raw materials such as coal, iron, and cement, to weigh up priorities, distribute licenses and so on.¹³

The German government dared not repeal the price freeze because that would mean an upward jump in prices, likely leading to worker unrest and

¹⁰ “Hitler’s Memorandum on the Four-Year Plan,” in Robert Stackleberg and Sally A. Winkle, eds., *The Nazi Germany Sourcebook: An Anthology of Texts* (London: Routledge, 2002), pp. 197–8.

¹¹ Walter Eucken, “On the Theory of the Centrally Administered Economy: An Analysis of the German Experiment: Part I,” trans. T. W. Hutchison, *Economica* (New Series) 15 (May 1948), p. 79. We will further discuss Eucken and Röpke, and the role their ideas played in postwar German economic policy, in Chapter 9.

¹² On German monetary policy during this period see Robert L. Hetzel, “German Monetary History in the First Half of the Twentieth Century,” *Federal Reserve Bank of Richmond Economic Quarterly* 88 (Winter 2002), pp. 1–35.

¹³ *Ibid.*

demands for higher wages, and raising the prices the government paid for military supplies. Thus “the tight hold on prices at their previous level, and the repression of inflation by pegging prices, became a dogmatically held principle of economic policy.”¹⁴

To deal with the shortages of consumer goods the German government imposed a rationing system. To deal with shortages of producer goods, it began declaring which industries were to receive priority, and allocating raw materials according to the priority system. To cope with the lack of incentive to produce at controlled prices, it began issuing decrees telling firms what quantities they *must* produce. This was the interventionist dynamic by which the Third Reich became a thoroughly state-controlled economy.¹⁵ Eucken noted that the trend intensified as the Reich sought to draft evermore resources into arms production:

With the growing danger of war ... it was necessary to concentrate productive resources on armaments and to force up the rate of investment.... more and more branches of production, and even the distribution of labour supplies and consumers' goods, came under the orders of the central planning authorities.¹⁶

In this way a central planning system arose under which, in contrast to the Soviet Union, “farms and factories alike continued to belong mainly to private individuals and companies” in name. But the nominal owners’ effective control over their property was severely limited by “widespread requisitioning of industrial stocks, which were only released for definite purposes consistent with the central plan.”¹⁷

Eucken drew the lesson from the German experience that Oskar Lange’s notion of market socialism (see [Chapter 2](#)) was internally inconsistent: its principle of allocation by prices, to be determined through competitive-like bidding, clashed with its principle of central control. In planning as Germany practiced it, the central authority first decided (for example) how much leather would be go into making shoes and how much into making industrial machine belts. Letting shoemakers and industrial-belt-makers

¹⁴ Ibid., p. 92.

¹⁵ For a theoretical discussion of the interventionist dynamic see John Hagel III and Walter E. Grinder, “From Laissez-Faire to Zwangswirtschaft: The Dynamics of Interventionism,” in Peter Kurrild-Klitgaard, ed., *Advances in Austrian Economics*, vol. 8, *The Dynamics of Intervention: Regulation and Redistribution in the Mixed Economy* (Bingley, UK: Emerald Group, 2004), pp. 59–86.

¹⁶ Ibid., p. 79.

¹⁷ Ibid., p. 80. For a firsthand perspective on Nazi economic controls, see Günter Reimann, *The Vampire Economy: Doing Business under Fascism* (New York: Vanguard Press, 1939).

bid against one another for leather might result in fewer machine belts than the plan called for. That could not be allowed because it would disrupt other industries that were counting on having a certain number of belt-driven machines. Eucken concluded:

[T]herefore, the central administration cannot leave the direction, in any important respects, of such means of production, to be decided through pricing, but must reserve the direction for itself, which was what happened in Germany.... To believe in the possibility of grafting prices on to the mechanism of control in a centrally administered economy is to believe in a squaring of the circle.... If control is left to the price mechanism, the central administration abdicates economically, while if the central administration takes over control, prices lose their directing function.¹⁸

The principle of consumer sovereignty – that consumer demands should determine the mix of goods produced – also failed to survive planning in practice. Planners made their own allocation job easier by reducing the variety of goods produced, overriding consumer preferences. Thus “[t]he influence of consumers disappear[ed].”¹⁹

WERNER SOMBART AND THE GERMAN HISTORICAL SCHOOLS

We discussed in [Chapter 4](#) the “older” German historical school of economics led by Wilhelm Roscher and Karl Knies, the “younger” historical school led by Gustav Schmoller, and their influence on the American institutionalist economists of the Progressive Era and the New Deal. The “Youngest” German historical school was led by Werner Sombart (1863–1941) of the University of Berlin, who had studied under Schmoller. In his six-volume work *Der moderne Kapitalismus* (1902), Sombart offered a Marxian-influenced critical history of modern capitalism in the style of the younger historical school. In *The Jews and Modern Capitalism* (1911) he linked the rise of capitalism to a “Jewish aptitude” for enterprise, providing a counterpoint to the sociologist Max Weber’s idea that a “Protestant spirit” had been responsible.

Sombart’s work most directly relevant to Nazi economic policy was *Deutscher Sozialismus* [German Socialism] (1934). The English translation was more coyly titled *A New Social Philosophy*.²⁰ It was so prowar and so

¹⁸ Ibid., p. 94; Walter Eucken, “On the Theory of the Centrally Administered Economy: An Analysis of the German Experiment: Part II,” trans. T. W. Hutchison, *Economica* (New Series) 15 (August 1948), p. 190.

¹⁹ Ibid., p. 183.

²⁰ Werner Sombart, *A New Social Philosophy*, trans. Karl F. Geiser (Princeton, NJ: Princeton University Press, 1937).

pro-Nazi that the Nazi Party distributed it as a textbook. Röpke summarized its message as a demand for “the militarisation of the whole society.” In his evolution from a self-described “convinced Marxian” to a National Socialist, Sombart personified Hayek’s description of Nazism as an offshoot of earlier German socialist doctrines. To Röpke, the policy recommendations of Sombart’s book exemplified the incoherence of fascist economics:

The climax of confusion is reached when the very men who are indefatigable in attacking – rightly or wrongly – the rationalistic and mechanistic character of industrialism and urbanism of our times are wallowing in schemes for economic planning, organisation and regimentation. This one of the numerous reasons which make, e.g., Werner Sombart’s *Deutscher Sozialismus* so unreadable.²¹

PLANNING DOCTRINES IN BRITAIN AND AMERICA

The Second World War pitted the Axis powers – the variously fascist economies of Germany, Italy, and Japan – against the more market-directed societies of the Allies together with the communist Soviet Union. In the decades before the War the market economies had been moving ever farther from *laissez-faire*. Hayek characterized the British economic system in 1935 as a halfway house:

[T]he system under which we live choked up with attempts at partial planning and restrictionism is almost as far from any system of capitalism which could be rationally advocated as it is different from any consistent system of planning.... We are certainly as far from capitalism in its pure form as we are from any system of central planning. The world of to-day is just interventionist chaos.²²

Several British and American writers observed the irony that during the war their economies were heading in the direction of their enemies’ economies.

Even before the Second World War, a growing number of intellectuals in the United Kingdom and the United States were promoting the idea of greater government control over the economy. Leading figures on the UK “Left” advocated various forms of socialism and central planning, while even the UK “Right” was offering a position somewhere between the free market and socialism. Harold Macmillan, the Conservative MP and future

²¹ Röpke, “Fascist Economics,” p. 99.

²² Hayek, “The Nature and History of the Problem,” in Hayek, ed., *Collectivist Economic Planning*, pp. 23–4.

Prime Minister, proposed major expansions of the government's economic roles in his 1938 book *The Middle Way*.²³

Many intellectuals on the Left saw the Soviet Union as a model for the future. Keynes in the 1920s had sneered at the Soviets' Marxist theories. Now, in a 1933 essay, he regarded the Soviet Union as an interesting experiment in national self-sufficiency, though he worried that its doctrinaire and overly hasty methods of transformation were breeding incompetence and inefficiency.²⁴ The British Fabian socialist writers Sidney and Beatrice Webb, having visited the Soviet Union, published *Soviet Communism: A New Civilization?* in 1935. In the following year Keynes gave a talk on BBC radio in which he accepted at face value the Webbs's glowing report on Soviet practice. Said Keynes:

[T]he new system is now sufficiently crystallized to be reviewed. The result is impressive. The Russian innovators have passed, not only from the revolutionary stage, but also from the doctrinaire stage.... They are engaged in the vast administrative task of making a completely new set of social and economic institutions work smoothly and successfully over a territory so extensive that it covers one-sixth of the land surface of the world. Methods are still changing rapidly in response to experience. The largest scale empiricism and experimentalism which has ever been attempted by disinterested administrators is in operation. Meanwhile the Webbs have enabled us to see the direction in which things appear to be moving and how far they have got. It is an enthralling work.... It leaves me with a strong desire and hope that we in this country may discover how to combine an unlimited readiness to experiment with changes in political and economic methods and institutions, whilst preserving traditionalism and a sort of careful conservatism...²⁵

Keynes worried that mass unemployment had bred totalitarian ideas on the European continent, and that the same could happen in the United Kingdom unless the government intervened directly to reduce unemployment. The LSE sociologist Karl Mannheim went one step farther in his book *Man and Society in an Age of Reconstruction* (1940), arguing that the UK would remain a free society only if it would adopt central planning to alleviate unemployment. Mannheim advanced a seeming paradox: "At the highest stage freedom can only exist when it is secured by planning." In Mannheim's understanding, freedom "cannot consist in restricting the powers of the planner, but in a conception of planning which guarantees the existence of the essential forms of freedom through the plan itself."²⁶

²³ (London: Macmillan, 1938). See Bruce Caldwell, *Hayek's Challenge*, pp. 232–8.

²⁴ John Maynard Keynes, "National Self-Sufficiency," *Yale Review* 22 (June 1933), pp. 755–69.

²⁵ John Maynard Keynes, *Collected Writings*, vol. 28, *Social, Political, and Literary Writings*, ed. Donald Moggridge (London: Macmillan, 1982), pp. 333–4.

²⁶ Quoted by Caldwell, *Hayek's Challenge*, p. 234.

In the United States, although neither major political party called for socialism, Milton and Rose Friedman recalled that socialist ideas prevailed among academics:

By 1929 socialism became the dominant ideology on the nation's campuses. *The New Republic* and *The Nation* were the intellectuals' favorite journals and [socialist] Norman Thomas their political hero.²⁷

On the Harvard University campus, economics professor Alvin Hansen in 1941 expressed the view, widely held among the intelligentsia, that the only choice was among political methods for implementing central planning: "It is not possible to go back to the atomistic order. . . . We do not have a choice between 'plan and no plan.' We have a choice only between democratic planning and totalitarian regimentation."²⁸

To mobilize resources for the Second World War the U.S. and UK governments assumed control of their economies' commanding heights. The U.S. War Production Board, created in 1939 before the United States' entry, oversaw the redirection of industrial production toward military outputs.²⁹ One first-hand participant in the effort later testified to the clumsiness of the planning process, observing that "We won the battle of production not because of our industrial mobilization efforts but in spite of them."³⁰ Wartime federal agencies administered price and wage controls, rationing, and manpower allocations including but not limited to the military draft. Production "czars" allocated rubber, petroleum, food, and other materials. The British government established similar economic control agencies, also beginning in 1939.

Well before the war ended, progressives and socialists in the United Kingdom lauded the wartime command-and-control apparatus as a template for the economic policies to be pursued in peacetime. The UK Labour Party, in its 1942 pamphlet *The Old World and the New Society*, urged: "There must be no return to the unplanned competitive world of the inter-War years, in which a privileged few were maintained at the expense of the common good." Rather, a "planned society must replace the old competitive

²⁷ Milton Friedman and Rose D. Friedman, "The Tide in the Affairs of Men," *Freeman* 39 (April 1989), available online at <http://www.fee.org/publications/the-freeman/article.asp?aid=2701>.

²⁸ Alvin H. Hansen, *Fiscal Policy and Business Cycles* (New York: W. W. Norton, 1941), p. 47.

²⁹ For a detailed account of U.S. mobilization for the Second World War, see Paul A. C. Koistinen, *Arsenal of World War II: The Political Economy of American Warfare, 1940–1945* (Lawrence: University Press of Kansas, 2004).

³⁰ Quoted by David Novick, Review of *Industrial Mobilization for War: History of the War Production Board and Predecessor Agencies, 1940–45*, in *American Economic Review* 38 (June 1948), pp. 447–8.

system ... As a necessary prerequisite to the reorganization of society, the main War-time controls in industry and agriculture should be maintained to avoid the scramble for profits which followed the last war.”³¹ In the next chapter we will see how the Labour Party implemented these ideas when it took power after the war.

THE POLITICAL IMPLICATIONS OF CENTRAL PLANNING

Hayek rejected the view that central economic planning was a way to save western societies from totalitarianism, that it was practically necessary for – or even consistent with – preserving political freedom as ordinarily understood. In a 1937 letter to the American intellectual Walter Lippmann he wrote: “I wish I could make my ‘progressive’ friends ... understand that democracy is possible only under capitalism and that collectivist experiments lead inevitably to fascism of one sort or another.”³² Hayek saw central planning not as a way to *avoid* loss of liberty, but as a path *toward* its loss.

Hayek’s writings on the political dangers of central planning began with a memorandum to William Beveridge, the Fabian socialist and director of the London School of Economics where Hayek taught. Hayek tried to disabuse Beveridge of the view that Hitler’s National Socialism was an antisocialist movement. Hayek later recalled in an interview:

Lord Beveridge ... was actually convinced that these National Socialists and capitalists [in Germany] were reacting against socialism. So I wrote a memorandum for Beveridge on this subject, then turned it into a journal article.³³

He expanded the journal article, “Freedom and the Economic System” (1938), into a pamphlet by the same title (1939),³⁴ and finally into what became his best-known book, *The Road to Serfdom* (1944). In Hayek’s view, “the rise of fascism and naziism was not a reaction against the socialist trends

³¹ National Executive Committee of the Labour Party, *The Old World and the New Society: A Report on the Problems of War and Peace Reconstruction* (London: Transport House, n.d.), pp. 3–4. Quoted by Caldwell, “Introduction” to *The Road to Serfdom*, p. 12.

³² Quoted by Gary Dean Best, “Introduction” to Walter Lippmann, *The Good Society* (New Brunswick, NJ: Transaction Books, 2005), p. xxxi. Here Hayek referred to fascism not simply as corporatist economic policy but as a totalitarian political system inimical to civil liberties.

³³ F. A. Hayek, *Hayek on Hayek*, p. 102. The memorandum is reproduced under the title “Nazi-Socialism” in Hayek, *The Road to Serfdom: Text and Documents, The Definitive Edition*, ed. Bruce Caldwell (Chicago: University of Chicago Press, 2007), pp. 245–8.

³⁴ The article and pamphlet are reprinted as [chs. 8 and 9](#) of F. A. Hayek, *Socialism and War: Essays, Documents, Reviews*, vol. 10 of *The Collected Works of F. A. Hayek* (Chicago: University of Chicago Press, 1997).

of the preceding period but a necessary outcome of those tendencies.”³⁵ Like other forms of socialism, Italian fascism and German National Socialism (Nazism) were collectivist doctrines, antithetical to classical liberal individualism. Even if well-meaning socialists sincerely wished to preserve civil liberty while centrally directing the economy, “the inherent logic of collectivism makes it impossible to confine it to a limited sphere.”³⁶

Hayek said that he based the title *The Road to Serfdom* on Alexis de Tocqueville's description of socialism as “a road to servitude.” (He substituted “serfdom” because he thought it sounded better.) Tocqueville (1805–59) was a French classical liberal who made insightful observations on American society in his two-volume work *Democracy in America* (1835, 1840). He wrote: “Democracy and Socialism have nothing in common but one word: equality. But notice the difference: while democracy seeks equality in liberty, socialism seeks equality in restraint and servitude.”³⁷

BEYOND THE SOCIALIST CALCULATION DEBATE

In the socialist calculation debate (see [Chapter 2](#)), Hayek, following Mises, had argued that a centrally planned economy could not produce anything close to the prosperity of a freely competitive economy directed by the price system. The market economy was the more prosperous system because it allowed individuals to make the fullest use of their own special bits of expertise in directing the allocation of scarce resources. In *The Road to Serfdom* Hayek argued that the effort to centrally plan had a serious *political* disadvantage as well: it relied on coercive controls. As people evaded the controls and acted in ways inconsistent with the plan, the coercive approach naturally tended to breed ever-wider controls that would snuff out individual liberty. It tended toward “serfdom,” a system of obligation and dependency on state planners akin to a medieval serf's obligation and dependency on his feudal lord. As workers and consumers, and finally as citizens, people would find themselves with less and less freedom of choice.

Mises and Hayek in the calculation debate had been willing to suppose, for the sake of focusing the argument, that a socialist regime (in which government controls the means of production) might respect consumer sovereignty, that is, seek to produce the mix of goods that consumers want. Their central argument had been that *even if* a socialist system sought to do so,

³⁵ Hayek, *Road to Serfdom*, p. 59.

³⁶ Hayek, “Nazi-Socialism” (1933), in *Road to Serfdom*, p. 247.

³⁷ Quoted by Hayek, *Road to Serfdom*, p. 77.

it wouldn't know *how* to produce what consumers want in an economical fashion. In *The Road to Serfdom* Hayek noted that the rulers of a centrally planned economy will in fact be strongly tempted *not* to respect consumer sovereignty, but rather to use their powers to aim toward a more limited mix of goods that in their view consumers *ought* to want, or that is easier to plan. Even if the planners let consumers choose among the available goods, they will limit consumer choice by reducing the variety of goods made available. Independent entrepreneurs will no longer be allowed to introduce alternative products to cater to under-served niches of the consumer market:

The authority directing all economic activity ... controls the means for all our ends, and must therefore decide which are to be satisfied and which not...

Our freedom of choice in a competitive society rests on the fact that, if one person refuses to satisfy our wishes we can turn to another. But if we face a monopolist we are at his mercy. And an authority directing the whole economic system would be the most powerful monopolist conceivable.³⁸

Because it eliminates the competition that restrains every producer's power, it is not true that central planning merely relocates an unchanged amount of power:

[B]y concentrating power so that it can be used in the service of a single plan, it is not merely transformed, but infinitely heightened.... It is entirely fallacious when it is sometimes argued that the great power exercised by a central planning board would be "no greater than the power collectively exercised by private boards of directors." There is, in a competitive society, nobody who can exercise even a fraction of the power which a socialist planning board would possess ...³⁹

"WHY THE WORST GET ON TOP"

In one of the best-known chapters of the book, Hayek argued that individuals skilled in wielding political power will naturally get ahead in a system where political power controls everything. That ruthless dictators – Stalin, Hitler, and Mussolini – rose to the top in the USSR, the German Third Reich, and fascist Italy was not accidental or mere bad luck. It was the predictable result of trying to impose a central plan on people who wished to pursue varied plans of their own:

³⁸ Ibid., pp. 126–7.

³⁹ Ibid., p. 165. In a footnote Hayek cited as the source of the quoted phrase Benjamin E. Lippincott, "Introduction" to Oskar Lange and F. M. Taylor, *On the Economic Theory of Socialism*, ed. Lippincott (Minneapolis: University of Minnesota Press, 1938), p. 35.

There are strong reasons for believing that what to us appear the worst features of the existing totalitarian systems are not accidental by-products but phenomena which totalitarianism is certain sooner or later to produce. Just as the democratic statesman who sets out to plan economic life will soon be confronted with the alternative of either assuming dictatorial powers or abandoning his plans, so the totalitarian dictator would soon have to choose between disregard of ordinary morals and failure. It is for this reason that the unscrupulous and uninhibited are likely to be more successful in a society tending toward totalitarianism.⁴⁰

In this connection Hayek quoted the tart observation of the economist Frank Knight: "the probability of the people in power being individuals who would dislike the possession and exercise of power is on a level with the probability that an extremely tender-hearted person would get the job of whipping-master on a slave plantation."⁴¹

THE TRAGEDY OF CENTRAL PLANNING: UNINTENDED POLITICAL RESULTS

Hayek warned well-meaning advocates of central economic planning (the book was sincerely dedicated "to socialists of all parties"), who believed with Keynes and Mannheim that planning was a way to *preserve* essential freedom, that the logic of central economic planning would produce results opposite to the results they wished for:

... many who think themselves infinitely superior to the aberrations of nazism, and sincerely hate all of its manifestations, work at the same time for ideals whose realization would lead straight to the abhorred tyranny. ... Scarcely anybody doubts that we must continue to move toward socialism ... Is it not possible that if the people whose convictions now give it an irresistible momentum began to see what only a few yet apprehend, they would recoil in horror and abandon the quest which for a half a century has engaged so many people of good will? ... Is there a greater tragedy imaginable than that, in our endeavour consciously to shape our future in accordance with high ideals, we should in fact unwittingly produce the very opposite of what we have been striving for?⁴²

The socialist calculation argument told Hayek that central planning would fail to produce the prosperity people wanted. The logic of politics told him that this failure would likely lead not to the abandonment of plan-

⁴⁰ Hayek, *Road to Serfdom*, p. 158.

⁴¹ *Ibid.*, p. 170.

⁴² *Ibid.*, pp. 59–60.

ning but to stronger efforts at planning, efforts that would leave ever less choice to people as consumers, workers, and citizens.

THE ALTERNATIVE PATH

For Hayek “the abandoned road” was individualism and classical liberalism, whose fundamental principles were free choice, the Rule of Law, and private property. Free choice meant “that in the ordering of our affairs we should make as much use as possible of the spontaneous forces of society, and resort as little as possible to coercion.” The Rule of Law, in contrast to the Rule of Men exemplified by central planners with wide discretion, meant that “government in all its actions is bound by rules fixed and announced beforehand.” Regarding private property, he emphasized the essential role of *dispersed* property ownership in enabling competition to take place:

What our generation has forgotten is that the system of private property is the most important guaranty of freedom, not only for those who own property, but scarcely less for those who do not. It is only because the control of the means of production is divided among many people acting independently that nobody has complete power over us, that we as individuals can decide what to do with ourselves.⁴³

Hayek’s here linked his defense of individualism to the conception of dispersed knowledge that also informed his 1945 article “The Use of Knowledge in Society,” discussed in Chapter 2. Individualism, in his view,

starts from the indisputable fact that the limits of our powers of imagination make it impossible to include in our scale of values more than a sector of the needs of the whole society, and that, since, strictly speaking, scales of value can exist only in individual minds, nothing but partial scales of values can exist – scales which are inevitably different and often inconsistent with each other. From this the individualist concludes that the individuals should be allowed, within defined limits, to follow their own values and preferences rather than somebody else’s; that within these spheres the individual’s system of ends should be supreme and not subject to any dictation by others. It is this recognition of the individual as the ultimate judge of his ends, the belief that as far as possible his own views ought to govern his actions, that forms the essence of the individualist position.⁴⁴

THE BOOK’S RECEPTION

Nobody was more surprised than Hayek when *The Road to Serfdom* quickly became a popular success. Although it was written primarily for

⁴³ Ibid., p. 136.

⁴⁴ Ibid., p. 102.

a British audience, the University of Chicago Press estimates that it sold 350,000 copies in the United States. The popular U.S. magazine *Reader's Digest* (with a circulation at that time remarkably around 8.75 million) included a 20-page condensed version in its April 1945 issue, and subsequently filled orders for more than one million reprint copies. *Look* magazine produced an even more condensed 18-page cartoon-illustrated (!) version, which was reprinted and widely distributed by the General Motors Corporation.⁴⁵ Hayek toured the United States in 1945, speaking to packed auditoriums and on the radio.

The long-run influence of the book has been considerable. Historian George H. Nash has observed that in America the book became a rallying point for “those who felt routed” by the political victories of FDR's New Deal. Nash adds: “It is a measure of their rout and of the paucity of libertarian thought in America in this period that they were obliged to rely on an Austrian professor for leadership.”⁴⁶ Appearing when intellectual support for the market economy was in decline, the book sparked the beginning of a revival of classical liberal thinking. Milton and Rose Friedman noted: “Hayek's *Road to Serfdom* in 1944 was probably the first real inroad in the dominant intellectual view.”⁴⁷ Journalist Henry Hazlitt considered its importance for classical liberalism comparable to John Stuart Mill's classic *On Liberty*.⁴⁸ British Prime Minister Margaret Thatcher and American President Ronald Reagan, who were young adults when the book was published, both read it and later spoke of its impact on their thinking. *Samizdat* copies circulated underground in Soviet-dominated Eastern Europe during the cold war. A panel assembled by the conservative political magazine *National Review* placed it at #4 on its list of the “100 best nonfiction books of the century.”⁴⁹

In 2007 a definitive new edition of the book appeared, edited by Bruce Caldwell. Its Kindle edition, released May 2009, became the best-selling

⁴⁵ Figures from Caldwell, “Introduction,” pp. 1, 19. London's Institute of Economic Affairs makes both the *Reader's Digest* condensed and *Look* cartoon versions available online at <http://www.iea.org.uk/files/upld-publication43pdf?.pdf>. The GM executives who spread Hayek's warning about the dangers of government control over the means of production would no doubt have been appalled to learn that their company would sell a majority share to the federal government in 2009 and become unofficially known as Government Motors.

⁴⁶ George H. Nash, “Hayek and the American Conservative Movement” (3 April 2004), available online at <http://www.isi.org/lectures/text/pdf/hayek4-3-04.pdf>, p. 11.

⁴⁷ Friedman and Friedman, “Tide in the Affairs of Men.”

⁴⁸ Henry Hazlitt, *New York Times Book Review* (24 September 1944).

⁴⁹ Available online at http://www.nationalreview.com/100best/100_books.html. It should be noted that Hayek considered himself a classical liberal or defender of liberty rather than a conservative or defender of the status quo. See the last section of [Chapter 8](#).

Kindle-format release ever for the University of Chicago Press. Even more remarkably, in 2010 the paperback edition rose to #1 on both the Amazon and Barnes and Noble best-seller lists for the first ten days of June following an hour-long discussion of the book on the Glenn Beck cable television talk show.

The initial response from progressive and socialist intellectuals in the 1940s, not surprisingly, was predominantly hostile. They saw the book as a reactionary attack on modern thinking, on what they saw as the indisputable principle that the economy must be intelligently guided by experts. Hayek later mused that the book “went so far as to completely discredit me professionally.”

British Labour Party economist Barbara Wootton offered a respectful book-length critique, *Freedom under Planning* (1945).⁵⁰ Wootton acknowledged the “possibility of conflict . . . between freedom and other praiseworthy social ends,” granting that central planning may curtail consumer and employee freedoms. Chester I. Barnard, reviewing Wootton’s book in the *Southern Economic Journal*, commented that despite its critical tone “it seems substantially to confirm Hayek’s thesis.”⁵¹

The shrillest response came from Herman Finer’s *The Road to Reaction* (1945), which began: “Friedrich A. Hayek’s *The Road to Serfdom* constitutes the most sinister offensive against democracy to emerge from a democratic country for many decades.” Where Hayek argued in fairly standard fashion for constitutional limits on democratic state action to protect individual liberty, Finer detected “the thoroughly Hitlerian contempt for the democratic man so perfectly expressed by Hayek.”⁵² Hayek, as his letter to Walter Lipmann indicated, actually aimed to *save* constitutional democracy from what he saw as the antidemocratic tendencies of central planning. Hayek clearly expressed his concern in the book:

If “capitalism” means here a competitive system based on free disposal over private property, it is far more important to realize that only within this system is democracy possible. When it becomes dominated by a collectivist creed, democracy will inevitably destroy itself. . . . The clash between planning

⁵⁰ Barbara Wootton, *Freedom under Planning* (Chapel Hill: University of North Carolina Press, 1945).

⁵¹ Chester Barnard, Untitled review of *Freedom under Planning* by Barbara Wootton, *Southern Economic Journal* 12 (January 1946), p. 290.

⁵² Herman Finer, *The Road to Reaction* (Boston: Little, Brown, 1945), pp. ix, 210. In a 1946 edition of Finer’s book, “sinister” became “inopportune” and “Hitlerian contempt” became “Hitlerian disparagement.”

and democracy arises simply from the fact that the latter is an obstacle to the suppression of freedom which the direction of economic activity requires.⁵³

The novels *Animal Farm* (1945) and *1984* (1948) by the British writer George Orwell, appearing soon after Hayek's book, vividly depicted the dangers of oppression under total state control, in many ways complementing Hayek's thesis. Orwell was balanced in his own review of *The Road to Serfdom*. He agreed that "in the negative part of Professor Hayek's thesis there is a great deal of truth. It cannot be said too often – at any rate, it is not being said nearly often enough – that collectivism is not inherently democratic, but, on the contrary, gives to a tyrannical minority such powers as the Spanish Inquisitors never dreamt of." But Orwell, himself a believer in democratic socialism, didn't buy Hayek's case for free markets: "a return to 'free' competition means for the great mass of people a tyranny probably worse, because more irresponsible, than that of the state."⁵⁴

Keynes also offered a mixed reaction. In an often-quoted letter to Hayek, he began by declaring: "In my opinion it is a grand book... You will not expect me to accept quite all the economic dicta in it. But morally and philosophically I find myself in agreement with virtually the whole of it; and not only in agreement with it, but in deeply moved agreement." In what followed, however, Keynes thoroughly rejected Hayek's central argument:

The line of argument you yourself take depends on the very doubtful assumption that planning is not more efficient. Quite likely from the purely economic point of view it is efficient....

I should guess that according to my ideas you greatly under-estimate the practicability of the middle course. But as soon as you admit that the extreme is not possible, and that a line has to be drawn, you are, on your own argument, done for, since you are trying to persuade us that so soon as one moves an inch in the planned direction you are necessarily launched on the slippery path which will lead you in due course over the precipice.

I should therefore conclude your theme rather differently. I should say that what we want is not no planning, or even less planning, indeed I should say that we almost certainly want more. But the planning should take place in a community in which as many people as possible, both leaders and followers wholly share your own moral position. Moderate planning will be safe if those carrying it out are rightly orientated in their own minds and hearts to the moral issue....

⁵³ Hayek, *Road to Serfdom*, p. 110.

⁵⁴ George Orwell, "Review of *The Road to Serfdom* by F. A. Hayek, etc." (1944), reprinted in Orwell, *The Collected Essays: Journalism and Letters*, vol. 3, *As I Please 1943–1946*, ed. Sonia Orwell and Ian Angus (Boston: Nonpareil Books, 2000), p. 118.

What we need therefore, in my opinion, is not a change in our economic programmes, which would only lead in practice to disillusion with the results of your philosophy; but perhaps even the contrary, namely, an enlargement of them. . . . Dangerous acts can be done safely in a community which thinks and feels rightly, which would be the way to hell if they were executed by those who think and feel wrongly.⁵⁵

Keynes thus dismissed Hayek's arguments that central planning cannot approach the market's efficiency, that halfway overall planning is not sustainable, that the political program of central planning has a built-in dynamic tending toward all-round control, no matter how benevolent or "right-thinking" the initial planners. As a top adviser to the UK Treasury, Keynes brushed aside Hayek's account of how "the worst get on top."

Keynes and other critics charged that Hayek had pictured the trend toward tyranny as inevitable – as Keynes put it, "that so soon as one moves an inch in the planned direction you are necessarily launched on the slippery path which will lead you in due course over the precipice" – and that such a view was evidently false given that Britain's flirtation with planning had not led to tyranny. Hayek protested that he offered a warning, not an unconditional prophecy. He warned that the central-planning path *would* lead Britain, as it had led Germany and Russia, to serfdom *if pursued to its bitter end*. In response to a 1977 interviewer who asked, "Is Britain irrevocably on the road to serfdom?," Hayek responded: "No, not irrevocably. That's one of the misunderstandings. *The Road to Selfdom* was meant to be a warning: 'Unless you mend your ways, you'll go to the devil.' And you can always mend your ways." Britain and other postwar European welfare states, however great the tax burden they placed on their citizens, "mended their ways" by retreating from central planning and returning the guidance of production principally to private entrepreneurs and the price system.

Reviews of the book in academic journals were mixed. Joseph Schumpeter gave it a thumbs-up in the *Journal of Political Economy* (1946). Arthur C. Pigou gave it a mixed review in the *Economic Journal* (1944). Evan Durbin, Hayek's colleague at the LSE, offered a long essay-review in the *Economic Journal* (1945) respectfully setting out why he "and other democratic Socialists, reject [Hayek's] powerful plea to abandon our beliefs in the institutions of a planned economy."⁵⁶ Charles Merriam, a wartime planner,

⁵⁵ John Maynard Keynes, *The Collected Writings*, vol. 27, *Activities, 1940–1946*, ed. Donald Moggridge (London: Macmillan, 1980), pp. 385–8.

⁵⁶ E. F. M. Durbin, "Professor Hayek on Economic Planning and Political Liberty," *Economic Journal* 55 (December 1945), p. 357.

gave a big thumbs down in the *American Journal of Sociology* (1944).⁵⁷ The *American Economic Review*, unusually, ran dueling reviews in 1945. An Editor's note explained: "In view of the ideological character of, and the great interest in, Professor Hayek's book it was found desirable to publish two reviews written from different standpoints." Aaron Director took the positive side, Eric Roll the negative.

POLITICAL BLOWBACK IN UNITED KINGDOM

In the political arena, Conservative Party leader Winston Churchill offered a pointed version of Hayek's argument about the danger to civil liberty in an election speech of June 4, 1945:

No Socialist government conducting the entire life and industry of the country could afford to allow free, sharp, or violently-worded expressions of public discontent. They would have to fall back on some form of Gestapo, no doubt very humanely directed in the first instance. And this would nip opinion in the bud; it would stop criticism as it reared its head, and it would gather all the power to the supreme party and the party leaders, rising like stately pinnacles above their vast bureaucracies of Civil Servants, no longer servants and no longer civil.⁵⁸

Labour Party leader Clement Atlee ridiculed Churchill's remarks in a speech the next day as a "second hand version of the academic views of an Austrian, Professor Friedrich August von Hayek, who is very popular just now with and supplied ideas to the Conservative Party." The "Gestapo" remark, considered an intemperate and even absurd exaggeration in the British context, probably contributed to Atlee's sweeping election win over Churchill. After winning, as we will discuss in the next chapter, the Labour Party under Atlee set to work implementing its version of socialist policies.

⁵⁷ Merriam subsequently, in a twin review in the *American Political Science Review* (1945), praised both Wootton's and Finer's critiques of Hayek.

⁵⁸ Quoted by Richard Holmes, *In the Footsteps of Churchill* (New York: Basic Books, 2005), p. 278. Streaming audio of Churchill's speech is available online at http://news.bbc.co.uk/hi/english/static/vote2001/in_depth/election_battles/1945_camp.stm.

Postwar British Socialism and the Fabian Society

When Clement Attlee led the British Labour Party into the 1945 general election against Winston Churchill and the Conservatives, the controversial Harold Laski was serving as the Party's chairman. Laski was a political scientist at the London School of Economics – his office close to F. A. Hayek's – and a leading socialist intellectual. When a series of newspaper stories reported Laski's seemingly favorable statements about the Soviet economic system and Stalin's government, Attlee was not pleased. After winning the election by a wide margin, Prime Minister Attlee informed reporters that he, not Professor Laski, would be in charge of policy making.¹ The *New York Times* duly ran a story with the droll headline: "Britain Not Run by Intellectuals."

Professor Laski, after the election was over, sued the popular British newspaper *The Daily Express*, charging that its stories had libelously accused him of advocating violent revolution. During the trial Laski had to spend several hours in the witness box interpreting his own speeches and academic prose as the newspaper's barrister confronted him with statement after statement that did, on its face, seem to favor such a revolution. Instructed by the judge that they could interpret Laski's words according to their ordinary meanings, the jury found that Professor Laski had not in fact been libeled.²

THE GENERAL ELECTION OF 1945

The Labour Party's election manifesto of 1945, "Let Us Face the Future," declared the Party's intention to bring about "the establishment of the

¹ Attlee rebuked Laski in private by sending him the message that "a period of silence on your part would be welcome."

² Daniel Johnson, "Minds Both Absent and Present," *New York Sun* (16 May 2006), available online at <http://www.nysun.com/arts/minds-both-absent-and-present/32793/>.

Socialist Commonwealth of Great Britain,” a government that would “plan from the ground up” with “a firm constructive hand on our whole productive machinery.” Under Labour’s rule a “National Investment Board would determine social priorities” for “planned investment in essential industries and on houses, schools, hospitals and civic centres.”³ These were not entirely new promises. Labour had endorsed some kind of “national planning” at least as far back as its 1934 manifesto. It had been committed to “common ownership of the means of production” since 1918.⁴ In its 1945 election campaign, the Party invoked the victorious results of wartime planning. As Labour politician Tony Benn (Member of Parliament 1950–2001) later summarized the case: “There was a belief that if we can plan for war we can plan for peace.”⁵

Benn explained why Clement Atlee, the Labour Party’s candidate for Prime Minister, rejected a free market economy:

Atlee ... saw the terrible poverty, and he said, “If you look around the world, what are the problems? They’re all caused by the private ownership of the means of production, distribution, and exchange.” And in the manifesto of 1945, he said the prewar slumps were not acts of God; they were the result of too much power in the hands of too few people, who behaved like a state within a state, and we have to take our future into our own hands.⁶

Longtime socialist Labour MP (1945–79) Barbara Castle, whose authorized biography was entitled *Red Queen*, similarly blamed the market economy’s lack of central planning for the boom and bust of the Great Depression:

[P]eople were brought up sharply against the fact that a free-for-all market economy is exactly what it says. It doesn’t know or care what the next fellow is doing. They’re all rampaging along and suddenly the whole thing comes unstuck because there’s no central planning, no brain at work behind it. ... Then, with lots of people doing that without ever looking over their shoulders [to] see how they were affecting anybody else, it couldn’t work, and it didn’t work, and it just came to a standstill.⁷

³ “Let Us Face the Future: A Declaration of Labour Policy for the Consideration of the Nation” (London: 1945), available online at <http://www.fordham.edu/halsall/mod/1945labour-letsuface.html>.

⁴ Richard Toye, *The Labour Party and the Planned Economy 1931–1951* (Woodbridge, UK: Boydell Press for the Royal Historical Society, 2003), pp. 1, 70.

⁵ Ollie Stone-Lee, “The Wartime Battle for Welfare?” BBC News Web site (25 July 2005), available online at http://news.bbc.co.uk/2/hi/uk_news/politics/4713041.stm.

⁶ *Commanding Heights* interview with Tony Benn (17 October 2000). Available online at http://www.pbs.org/wgbh/commandingheights/shared/minitext/int_tonybenn.html.

⁷ *Commanding Heights* interview with Barbara Castle (16 October 2000), available online at http://www.pbs.org/wgbh/commandingheights/shared/minitextlo/int_barbaracastle.html.

LABOUR IN POWER

With Labour's landslide victory in the 1945 general election, in Castle's words, "What we set out to do was to ensure that this system of fair shares and the planning and controls continued after the war, and when we won, that's what we did." She was right about the "fair shares" (government rationing) and controls. Prices controls and rationing of consumer goods continued for years after the war. Clothing and furniture were rationed until 1948 and 1949. The last of food rationing was not eliminated until 1954. Coal rationing remained until 1958. In addition to viewing price controls and rationing as fair, Labourites saw them as a way of suppressing inflation. In a report prepared for the wartime government, which sought suggestions for postwar policies, A. C. Pigou blamed the prompt elimination of price controls after the First World War for postwar price inflation and a boom-bust-stagnation cycle.⁸

The Attlee government also continued wartime foreign exchange controls, restricting the exchange of British pounds for U.S. dollars. The fixed dollar value of the pound was too high to meet all demands to swap pounds for dollars without exhausting the government's dollar reserves. Exchange controls effectively restricted exports of financial capital and imports of goods and services. Most imported goods were also restricted by quotas. The government directly allocated such materials as steel and timber. Its allocations favored nationalized industries, export industries, and the construction of public housing. Controls on steel lasted until 1950, and then were briefly reinstated in 1952–3.⁹

Castle's statement about the continuation of planning was something of an exaggeration. A centralized effort to direct the allocation of resources, in peace as in the war, never really materialized.¹⁰ Some Labourites tried. An organized group of economists within the Attlee government half-seriously called themselves "Gosplanners" after the Soviet central planning bureau, though their favored version of planning was less comprehensive than the Soviet version. Their influence was eclipsed by a rival group they called the

⁸ Pigou's study, completed in 1942, was later published as A. C. Pigou, *Aspects of British Economic History, 1918–1925* (London: Macmillan, 1947).

⁹ Martin Chick, *Industrial Policy in Britain 1945–1951: Economic Planning, Nationalisation and the Labour Governments* (Cambridge: Cambridge University Press, 1998), pp. 2–3.

¹⁰ On British wartime and postwar industrial policies and their administration, see David Edgerton, *Warfare State: Britain, 1920–1970* (Cambridge: Cambridge University Press, 2006), ch. 2.

“Thermostatters,” led by economist James Meade, who favored Keynesian aggregate demand management without detailed industrial planning. Meade called his own faction “Liberal-Socialists.”¹¹

In 1947 the Attlee government did create an Economic Planning Board, a Central Economic Planning Staff (CEPS) headed by a Chief Planner, and an Investment Programmes Committee (IPC). But the Board was merely an advisory “talking shop.” The CEPS and IPS focused on the government budget and state-owned enterprises.¹² Their activity did not usher in “the general supersession of individual enterprise as the source of economic decisions,” the declared goal of the Labour Party’s chief theoretician of planning, economist Evan Durbin.¹³

According to Stephen Brooke, comprehensive economic planning was blocked in part by trade union leaders, a powerful element of the Labour Party, who would not accept a “planned wage policy” for directing the allocation of manpower. Meanwhile Evan Durbin rejected nonwage (compulsory) allocation of labor.¹⁴ Here Durbin lived up to the promise he had made in his critique of Hayek’s *Road to Serfdom* (see Chapter 6), that planning would *not* lead to restrictions on worker and consumer choice. If Hayek’s book had had some small part in electing Labour (through the blowback against Churchill’s clumsy use of its argument in an election speech), perhaps the book or Hayek personally had some small part, by exercising a classical-liberal influence on his LSE colleague Durbin, in restraining Labour’s planning efforts once in power.

Labour’s nationalization program did give the UK government a large measure of control over the commanding heights. Under Attlee, Parliament nationalized iron and steel companies, inland transportation companies (railroads, aviation, trucking, canals), fuel and power companies (coal, gas, electricity), and the telecommunications firm Cable and Wireless. (Telephone services had already been nationalized under the post office earlier in the century.) It nationalized hospitals and most of other medical care by creating the National Health Service. It did not nationalize land, despite the election manifesto’s declaration that “Labour believes in land nationalisation and will work towards it,” but did introduce a “Town

¹¹ Toye, *The Labour Party*, pp. 187–9. Meade received the Nobel Prize in economics in 1977 for his work in international trade theory.

¹² *Ibid.*, p. 16.

¹³ Quoted by Toye, *Labour Party*, p. 5.

¹⁴ Stephen Brooke, “Problems of ‘Socialist Planning’: Evan Durbin and the Labour Government of 1945,” *Historical Journal* 34 (September 1991), pp. 687–702.

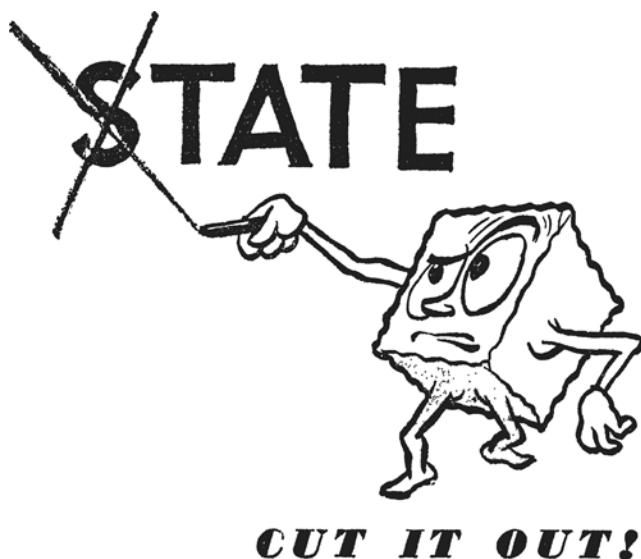


Figure 7.1. Mr. Cube Opposes the Nationalization of Sugar Refiners Tate and Lyle.
 Source: Cole (1932), p. 237.

and Country Planning” system.¹⁵ It nationalized the Bank of England, which had already long been under government control despite nominal private ownership, but did not nationalize the commercial banks. It did not nationalize sugar refining, thanks to the Tate & Lyle firm’s popular advertising campaign featuring the cartoon mascot Mr. Cube (Figure 7.1), who vigorously crossed out the “S” to prevent “Tate” becoming “State.”¹⁶

The nationalized industries, following the models of the British Broadcasting Corporation (established 1927) and London Transport, became state-owned corporations run by government-appointed boards. Together they employed about 20 percent of British workers.¹⁷

THE FABIAN SOCIALIST ROOTS OF LABOUR POLICY

Labour’s postwar program of nationalization was the fruit of many decades of intellectual activism by the Fabian Society, a democratic socialist

¹⁵ See Michael Tichelar, “The Labour Party, Agricultural Policy and the Retreat from Rural Land Nationalisation during the Second World War,” *Agricultural History Review* 51 (2003), pp. 209–25.

¹⁶ On the Mr. Cube campaign see H. H. Wilson, “Techniques of Pressure – Anti-Nationalization Propaganda in Britain,” *Public Opinion Quarterly* 15 (Summer 1951), pp. 225–42.

¹⁷ Yergin and Stanislaw, *Commanding Heights*, p. 26.

movement long led by Sidney Webb, Beatrice Webb, and George Bernard Shaw.¹⁸ In Labour's 1945 election victory, over two hundred members of the Fabian Society were elected to Parliament. The label *Fabian*, meaning incremental rather than revolutionary, came from Quintus Fabius Maximus, the Roman general whose strategy was to weaken Hannibal's invading Carthaginian army by gradual attrition rather than to engage in any end-all battle. The society, explained G. D. H. Cole, one of its leaders from the 1930s to the 1950s, took an "evolutionary and gradualist" approach to economic policy reform, "expecting socialism to come as the sequel to the full realization of universal suffrage and representative government."¹⁹

The Fabian Society was founded in 1883, splintering off from a utopian socialist group to focus on one-step-at-a-time policy reform, developing and publicizing appealing socialist proposals. George Bernard Shaw and Sidney Webb joined the following year, and the two became its intellectual leaders. The book *Fabian Essays in Socialism* (1889) by Shaw, Webb, and others, made the society's first big splash. A third leader arrived in the person of Beatrice Webb, née Potter, who joined in 1891 and became Sidney's wife the following year. From the 1880s to the 1930s the society turned out more than two hundred "Fabian Tracts" expounding for a popular audience the various shortcomings of capitalism and the various advantages of socialist policies. Some representative titles: *An Eight Hours Bill* (No. 9, 1890), *Practicable Land Nationalisation* (No. 12, 1891), *Socialism: True and False* (No. 51, 1894), *The Case for State Pensions in Old Age* (No. 73, 1899), *Houses for the People* (No. 76, 1899), *State Purchase of Railways* (No. 150, 1910), *A National Medical Service* (No. 160, 1911). The society today describes itself as "the UK's premier left of centre think tank" and is officially affiliated with the Labour Party.

SIDNEY AND BEATRICE WEBB

Sidney James Webb (1859–1947) married Martha Beatrice Potter (1858–1943) – not to be confused with Beatrix Potter (1866–1943), author of *The Tale of Peter Rabbit* and other children's stories – in 1892. They had no children. Together the Webbs founded the London School of Economics and Political Science in 1895, the LSE for short, using some £20,000 bequeathed to the Fabian Society. Both were active in the Fabian Society

¹⁸ Ibid., p. 23.

¹⁹ G. D. H. Cole, "Fabianism," in Edwin R. A. Seligman, ed., *Encyclopedia of the Social Sciences* (London: Macmillan, 1932), pp. 46–9. Available online at <http://web.archive.org/web/20080119011941/http://www.wcml.org.uk/group/fabianism.htm>.

and in Labour Party politics. In 1913 they started a weekly magazine, *New Statesman*. They coauthored many books during their half-century together, including *History of Trade Unionism* (1894); *Industrial Democracy* (1897); *English Local Government* (9 volumes, 1906–29); *English Poor-Law Policy* (1910); *The Cooperative Movement* (1914); *A Constitution for the Socialist Commonwealth of Great Britain* (1920); *The Decay of Capitalist Civilization* (1923); *Methods of Social Study* (1932); *Soviet Communism: A New Civilization?* (1935); and *The Truth about Soviet Russia* (1942).²⁰

Sidney helped to found the Labour Party in 1900. He served as a Party executive 1915–25, as a Labour Member of Parliament 1922–9, and in the Labour government 1929–31. He cowrote the Party constitution that was adopted in 1918.²¹ Clause IV of the constitution, endorsing “the common ownership of the means of production and the best obtainable system of popular administration and control of each industry or service,” remained a part of the Labour Party constitution until it was finally struck out and replaced under Tony Blair’s leadership in 1995. The first part of the clause committed the Party to socialism. The second part left the institutional type of socialism open. The range of possibilities ran from municipal coops to nationalized industries. National central planning on the Soviet model was not yet part of Labour socialism in 1918. It would be incorporated in the early 1930s.²²

The Party’s 1918 election manifesto, *Labour and the New Social Order*, was also largely drafted by Sidney Webb. Thus the historian Richard Toye observes that “it was the Fabians who, at the close of World War I, succeeding in placing their ideological imprint on Labour.”²³ The manifesto offered a detailed program of reform in four parts. (1) Government was to guarantee a minimum personal income, characterized as “the securing to every member of the community, in good times and bad alike (and not only to the strong and able, the well-born or the fortunate), of all the requisites of healthy life and worthy citizenship.” It was to ensure a maximum (48 hour) work week, commit to “deliberately and systematically preventing the occurrence of unemployment” through public works projects, and provide unemployment insurance. (2) The manifesto called for “a genuinely scientific reorganization of the nation’s industry, no longer deflected

²⁰ For a joint biography of their early careers see Royden Harrison, *The Life and Times of Sidney and Beatrice Webb, 1858–1905* (London: Macmillan, 2000).

²¹ G. D. H. Cole, *A History of the Labour Party from 1914* (London: Routledge, 1948), p. 44.

²² *Ibid.*, pp. 54, 56; Toye, *Labour Party*, pp. 25, 28, 70–1.

²³ *Ibid.*, p. 12. On the Fabian Society’s earlier impact see A. M. McBriar, *Fabian Socialism and English Politics, 1884–1918* (Cambridge: Cambridge University Press, 1966).

by individual profiteering, on the basis of the Common Ownership of the means of Production." Common ownership was to begin with "the immediate Nationalisation of Railways, Mines, and the production of Electrical Power" and extend to "Canals ... along with Harbours and Roads and the Posts and Telegraphs – not to say also the great lines of steamers," and still further to "the Common Ownership of the nation's land, to be applied as suitable opportunities occur." And in general: "Other main industries, especially those now becoming monopolised, should be nationalised as opportunity offers." Nationalized industries were to be run with the "participation of the organised workers in the management of both central and local." (3) The income tax was to fall more heavily on incomes above the minimum standard. This was to be supplemented by "an appropriate direct Taxation of Land Values," namely taxation on "the rental value of the lands superior to the margin of cultivation." "Death Duties" were to be "regraduated, much more strictly collected, and greatly increased." (4) The state was to expropriate "surplus wealth."²⁴

The Labour manifesto, Stanley Shapiro notes, was read and hailed by "virtually all the organs of progressive thought" in the United States, led by *The New Republic* which "devoted a whole edition to *Labour and the New Social Order* and published the text as a special supplement." American labor union periodicals joined in the praise.²⁵ Norman Angell, a Labourite author, pitched the manifesto to the American audience in his book *The British Revolution and the American Democracy: An Interpretation of British Labour Programmes* (1919).

In addition to his books with Beatrice, and his coauthorship of *Fabian Essays in Socialism* (1889), Sidney wrote *Facts for Socialists* (1887), *Problems of Modern Industry* (1898), and *Restoration of Trade Union Conditions* (1917). He supported himself as an author and journalist, with help from Beatrice's inheritance, until he took a chair as professor of public administration at the LSE, which he held from 1912 to 1927.

Beatrice Webb as sole author wrote *The Co-operative Movement in Great Britain* (1891), *Wages of Men and Women: Should They Be Equal?* (1919), and two memoirs: *My Apprenticeship* (1926) and *Our Partnership* (1948). She was a member of the Royal Commission on the Poor Law (1905–9), in

²⁴ All quotes from "Labour and the New Social Order," reprinted as Appendix I in Norman Angell, *The British Revolution and the American Democracy: An Interpretation of British Labour Programmes* (New York: B. W. Huebsch, 1919), pp. 297–324.

²⁵ Stanley Shapiro, "The Passage of Power: Labor and the New Social Order," *Proceedings of the American Philosophical Society* 120 (29 December 1976), p. 470.

which capacity she and Sidney coauthored a Minority Report calling for a greater government role in poor relief.

Critics have pointed to the Webbs' apparently naive "romance" with Russian communism, often quoting Beatrice's statement that they had "fallen in love with the Soviet Union."²⁶ The couple visited the Soviet Union in 1932. After returning home they wrote a book on what they had been shown and told, published in 1935. In a scathingly critical account of the western "Sovietophiles" of the 1930s, the historian Robert Conquest writes:

Most notorious, of course, were the deans of Western social science, Sidney and Beatrice Webb, who went to Russia, saw the system, and produced what purported to be a learned tome on the subject – *Soviet Communism: A New Civilisation?* – which in its second edition, at the height of the terror, dropped the question mark.

Their massive exercise in drivel was largely based on believing Soviet official documents. They were, in effect, taken in above all by Potemkin paperwork – of elections, trade unions, cooperatives, statistics, all the documents of the phantom USSR.²⁷

The "terror" to which Conquest refers was Soviet ruler Josef Stalin's program of show trials, executions, deportations to Siberian gulags, and policy-made famines.²⁸ The Webbs overlooked all that. They praised the Soviet Union's health and educational systems, and its equality for women. They predicted that its "social and economic system of planned production for community consumption" would spread across the globe. They continued in the same vein with *The Truth about Soviet Russia* (1942), supporting the Soviet regime even after Stalin's purges. They called the USSR "the most inclusive and equalized democracy in the world" and excused its brutal dictatorship with the claim that "there is no alternative to the One-Party System."

GEORGE BERNARD SHAW

George Bernard Shaw (1856–1950) is most famous as a playwright, the author of *Candida* (1897); *Man and Superman* (1902); *Major Barbara*

²⁶ Quoted by Margaret Cole, *Beatrice Webb* (New York: Harcourt Brace, 1946), p. 198. Margaret Cole was the wife of G. D. H. Cole.

²⁷ Robert Conquest, "Liberals and Totalitarianism," *New Criterion* 17 (February 1999), pp. 4–13.

²⁸ See Robert Conquest, *The Great Terror: A Reassessment* (New York: Oxford University Press, 1990). Conquest estimates 13–15 million deaths from Stalin's purges and famine-producing agricultural policies.

(1905); *Pygmalion* (1913), which became *My Fair Lady* in its musical adaptation; and *Saint Joan* (1923). He was awarded the Nobel Prize in Literature in 1925. But he doubtless penned more words in his role as a prominent Fabian pamphleteer and book author. In *The Jevonian Criticism of Marx* (1885) Shaw popularized the criticism of Marxian theory made by neoclassical economists William Stanley Jevons and Philip Wicksteed, who had convinced Shaw to reject the labor theory of value. Shaw's role as a coauthor of *Fabian Essays in Socialism* (1889) has already been mentioned. Much later he published *The Intelligent Woman's Guide to Socialism and Capitalism* (1923) and *Essays in Fabian Socialism* (1932).

HAROLD J. LASKI

Harold J. Laski (1893–1950), professor of political science at the LSE 1920–50, was a prominent Fabian and Labourite in the 1930s.²⁹ Laski served on the Executive Committee of the Fabian Society 1922–36. He served on the Executive Committee of the Labour Party 1936–48 and was its chair 1945–6. Laski grew more radical as he grew older. According to his student and friend Ralph Miliband, “Until the late twenties, Laski was a Fabian Socialist; from then onwards, he considered himself a Marxist.”³⁰ Laski's book *A Grammar of Politics* (1925) spelled out the Fabian case for socialism. During his Marxist phase Laski published *Liberty in the Modern State* (1930) and *Democracy in Crisis* (1933), arguing that corporate interests threaten democracy. His later books included *Reflections on the Revolution of Our Time* (1943) and *Faith, Reason and Civilization* (1944). In a review of Laski's 1943 book the economist Joseph A. Schumpeter, who had recently published *Capitalism, Socialism, and Democracy* (1942), dryly observed with “melancholy sympathy” the “battle of ideals and party slogans against unwillingly perceived hard facts that rages throughout the last two hundred pages of the book.” Another academic reviewer called Laski's 1944 work “a confession of faith in the Russian Revolution,” adding, “For non-Marxians, Laski's defense of Soviet terror is the most disturbing feature of the book.”³¹

²⁹ On Laski's intellectual biography, and his interactions with Keynes and Hayek, see Kenneth R. Hoover, *Economics as Ideology: Keynes, Laski, Hayek, and the Creation of Contemporary Politics* (Lanham, MD: Rowman and Littlefield, 2003).

³⁰ Ralph Miliband, “Harold Laski's Socialism,” *Socialist Register* 31 (1995), available online at http://socialistregister.com/socialistregister.com/files/SR_1995_Miliband.pdf.

³¹ Joseph A. Schumpeter, Review of Laski's *Reflections on the Revolution of Our Time*, *American Economic Review* 34 (March 1944), pp. 161–4; Francis G. Wilson, Review of

Like the Webbs, both Shaw and Laski also carried on a “romance” with the Soviet system. Laski in a 1942 letter to Beatrice Webb simultaneously deplored and excused Stalin’s atrocities:

I am confident that the main defects are either the outcome of external fear or the grim growing pains which result from imposing the dynamic of a modern industrialized state on a backward and illiterate population. The price has been tremendous, the follies, even the crimes, immense. I still believe that, with victory, it will fifty years from now, prove to have been worth while.”³²

Fifty years later the Soviet Union had in fact proven unsuccessful and had dissolved. In his 1943 book Laski criticized the repression of personal liberties in the Soviet Union, but at the same time affirmed Bolshevism’s “true character as a genuine search for democracy and freedom.” These aims would be realized if only the experiment could be “conducted in an atmosphere of security” free from surrounding “tensions.”³³ George Orwell ridiculed Laski for writing such “pernicious tripe” that overlooked the USSR’s “purges, liquidations, the dictatorship of a minority, suppression of criticism and so forth.”³⁴

Laski’s admiration for Soviet industrialization influenced many Indian students at the LSE who later supported Prime Minister Jawaharlal Nehru’s efforts to have India adopt Soviet-style five-year industrial plans. We will pick up this story in [Chapter 10](#).

WILLIAM BEVERIDGE

One more influential Fabian to be mentioned is William Beveridge (1879–1963). Beveridge was director (i.e., university president) of the LSE from 1919 to 1937, and was the man to whom Hayek addressed the 1933 memorandum that grew into *The Road to Serfdom*. Early in his career Beveridge worked with Beatrice Webb as a member of the Royal Commission on the Poor Law (1905–9), and wrote *Unemployment: A Problem of Industry* (1909). His most important Fabian-influenced work was *Social Insurance and Allied Services* (1942), more commonly known as the “Beveridge Report,” a war-time document that became the blueprint for the Labour Party’s postwar

Laski’s *Faith, Reason, and Civilization*, *American Political Science Review* 38 (December 1944), pp. 1224–5.

³² Quoted in Hoover, *Economics as Ideology*, p. 138.

³³ Harold J. Laski, *Reflections on the Revolution of Our Time* [1943] (London: Frank Cass, 1968), pp. 265–6.

³⁴ George Orwell, *The Collected Essays: Journalism and Letters*, vol. 3, *As I Please 1943–1946*, ed. Sonia Orwell and Ian Angus (Boston: Nonpareil Books, 2000), p. 142n.

“social insurance” reforms that created a British welfare state. Beveridge promoted Keynesian macroeconomic policies in his book *Full Employment in a Free Society* (1944).³⁵

THE FABIAN VIEW OF ECONOMIC HISTORY

The Fabians’ outlook on the clash between capitalism and socialism differed from that of Marx and Engels. Marx prophesied the increasing “immiseration” of the working class and envisioned socialism arriving through worker revolution. He called for the abolition of property and the establishment of a “dictatorship of the proletariat.” Marx’s notion that only a cataclysmic class struggle would improve the lives of workers seemed to take the French Revolution as the only model for change. The contrasting Fabian view was based on having observed the century following the French Revolution. G. D. H. Cole summarized it as follows:

Webb argued that the economic position of the workers had improved in the nineteenth century, was still improving and might be expected to continue to improve. He regarded the social reforms of the nineteenth century (e.g. factory acts, mines acts, housing acts, education acts) as the beginnings of socialism within the framework of capitalist society. He saw legislation about wages, hours and conditions of labor, and progressive taxation of capitalist incomes as means for the more equitable distribution of wealth; and he envisaged the next steps toward socialism in terms of such social reforms as public ownership and administration of industries and services.³⁶

The Fabians envisioned these reforms being implemented by economic and social experts, not by the proletariat. Socialism for them meant gradual transformation to state ownership of the means of production, not immediate abolition of private property.

FABIAN ECONOMICS AND RICARDIAN RENT THEORY

The starting point for Fabian economic theory, as for Marxist economic theory, was the classical theory of distribution as developed by David Ricardo. But where Marx derived the exploitation of the working class from the labor theory of value, the Fabians derived the exploitation of all nonlanded classes alike from the Ricardian theory of rent. George Bernard

³⁵ For Hayek’s highly critical review of the last-mentioned book see F. A. Hayek, *Contra Keynes and Cambridge: Essays, Reviews*, ed. Bruce Caldwell, vol. 9 of *The Collected Works of F. A. Hayek* (Chicago: University of Chicago Press, 1995), pp. 233–6.

³⁶ Cole, “Fabianism.”

Shaw, in a 1913 lecture, listed his familiarity with “Ricardo’s law of rent” first among his qualifications to be considered “really a political economist.”³⁷

Ricardo had explained that the rent on a superior plot of land was the payment made for access to its extra productivity over the least productive plot in use. Plots of the “marginal” or least-productive quality in use earned no rent because there were plenty available even at a zero rent. Superior land produced greater revenue from application of the same labor and capital inputs, due to greater fertility or better location, and its owner could therefore demand and receive a differential rent. Ricardo wrote:

Rent is that portion of the produce of the earth, which is paid to the landlord for the use of the original and indestructible powers of the soil. . . . If all land had the same properties, if it were unlimited in quantity, and uniform in quality, no charge could be made for its use, unless where it possessed peculiar advantages of situation. It is only, then, because land is not unlimited in quantity and uniform in quality, and because in the progress of population, land of an inferior quality, or less advantageously situated, is called into cultivation, that rent is ever paid for the use of it. When in the progress of society, land of the second degree of fertility is taken into cultivation, rent immediately commences on that of the first quality, and the amount of that rent will depend on the difference in the quality of these two portions of land.³⁸

Ricardo’s theory was a precursor to the more general “marginal productivity” theory of input rewards (wages, ground rents, and machine rentals) introduced by neoclassical economics.

From Ricardian rent theory it was a small step to the position that the rent-receiving landowner personally contributes nothing to production beyond the extent to which he has made costly improvements to his plot. Combine that position with the normative view that ownership of a naturally advantageous plot of land is merely undeserved luck, and it follows that the landowner deserves nothing. The rent from unimproved land is an unearned income. For urban plots, virtually all the ground rent is due purely to location. Because ground rent rewards no effort on the landowner’s part, taxing it away will not affect the supply of land, its rental price to tenants, or its chosen use. Thus the Labour Party manifesto of 1918 called, in overtly Ricardian language, for direct taxation of “the rental value of the lands superior to the margin of cultivation.”

³⁷ George Stigler, “Bernard Shaw, Sidney Webb, and the Theory of Fabian Socialism,” in *Essays in the History of Economics* (Chicago: University of Chicago Press, 1965), p. 269. Knowledge of “Jevons’ law of value” came second.

³⁸ David Ricardo, *On the Principles of Political Economy and Taxation*, 3rd ed. (London: John Murray, 1821), ch. 2.

The thinker who most influenced the Fabians by developing these policy implications of Ricardian rent theory was Henry George, a popular American economist and social reformer. In the decade following the publication of his best-selling book *Progress and Poverty* in 1879, George made three celebrated lecture tours of Great Britain. Shaw's interest in economic reform began when he happened to hear George lecture in London in 1882. Shaw became a socialist after studying George's book. In Shaw's own recollection:

I heard a man deliver a speech which changed the whole current of my life. . . . The result of hearing that speech and buying . . . *Progress and Poverty* . . . was that I . . . was swept into the great Socialist revival.

Shaw added that he "found that five-sixths of those who were swept in with me had been converted by Henry George."³⁹ Sidney Webb wrote in 1890 that "there can be no doubt that it was the enormous circulation of his *Progress and Poverty* which gave the touch which caused all the seething influences to crystallize into a popular Socialist movement."⁴⁰

HENRY GEORGE

Henry George (1839–97) struggled as a sailor, as a California gold prospector, then as a journalist in San Francisco, until he wrote *Progress and Poverty* (1879), which sold more than three million copies. George began with Ricardian rent theory: "rent [on land] will be the excess in productiveness over the yield at the margin . . . [i.e.] the excess of produce over what the same amount of labor and capital obtains in the least remunerative occupation."⁴¹ Ricardo's theory implied that differential rents would rise with population growth, as cultivation was pushed out to ever-worse marginal land. For George this implication was the key to explaining why poverty persists despite technological progress: "With the growth of population, land grows in value, and the men who work it must pay more for the privilege."⁴² Thus a growing share of output in a progressing market

³⁹ Quoted by Peter d'A. Jones, *Henry George and British Socialism* (New York: Garland, 1991), pp. 183–4. See also Archibald Henderson, *George Bernard Shaw: Man of the Century* (New York: Appleton-Century-Crofts, 1956), p. 215, as cited by Stigler, *Essays in the History of Economics*, p. 269 n.

⁴⁰ Quoted by Jones, *Henry George and British Socialism*, p. 121.

⁴¹ Henry George, *Progress and Poverty* (Garden City, NY: Doubleday, 1912). Available online at <http://www.econlib.org/library/YPDBooks/George/grgPP12.html>.

⁴² As quoted in Jack Schwartzman, "Henry George and the Single Tax," in Kenneth C. Wenzer, ed., *An Anthology of Single Tax Thought* (Rochester, NY: University of Rochester Press, 1997), p. 276.

economy is siphoned off by lucky land and natural resource owners in the form of ever-higher Ricardian rents, especially in rents due to favorable location near a city center.

An English economist, T. E. Cliffe Leslie, disputed George's account by arguing that, due to increases in productivity per worker, increases in real wages could accompany increases in population, and in England historically *had* accompanied them.⁴³ Alfred Marshall made similar and additional criticisms.⁴⁴ Further testimony to George's importance came from a long list of other prominent critics, including John Bates Clark, a leading American neoclassical economist who cited George's argument as the irritant that led him to develop the marginal-productivity explanation of wages and other incomes.⁴⁵

George Bernard Shaw enthusiastically adopted Henry George's critique of land rent as a large and growing subtraction from the incomes of workers. In the first paragraph of Fabian Tract 13, *What Socialism Is*, Shaw wrote:

England is now private property ... The price we must pay [for land] rises as the population grows; for the more people there are the higher will bid against one another for their dwellings and places of business.... After payments of one sort or another to the owners of the whole country have been deducted from the produce of the workers' labor, the balance left for wages is so small that if every working family got an equal share, each share would come to ... not enough for a comfortable living, much less for saving. Nevertheless the proprietary classes, without working at all for it, divide among them enough to give ... rich families [an income many times greater].⁴⁶

Based on Ricardo's rent theory, Henry George concluded that the ideal tax, with no discouraging effect on production, was a tax on unimproved ground rent (that is, the rental price of land exclusive of any portion attributable to structures or costly improvements in fertility or access). As George summarized his view in an 1887 debate:

A tax which is levied upon the production of a thing that must constantly be produced by human labor will, by making supply more difficult, raise prices, and the man who pays the tax is thus able to push the tax upon the consumer.

⁴³ T. E. Cliffe Leslie, *Essays in Political Economy*, 2nd ed. (London: Longmans, 1888), pp. 151–2. Cited by Bernard Newton, "The Impact of Henry George on British Economists, I: The First Phase of Response, 1879–82; Leslie, Wicksteed and Hobson," *American Journal of Economics and Sociology* 30 (April 1971), p. 183.

⁴⁴ Bernard Newton, "The Impact of Henry George on British Economists, II: The Second Phase of Response, 1883–4: Marshall, Toynbee and Rae," *American Journal of Economics and Sociology* 30 (July 1971), p. 320–2.

⁴⁵ John Bates Clark, *The Distribution of Wealth* (New York: Macmillan, 1899), p. viii.

⁴⁶ George Bernard Shaw, *What Socialism Is*, Fabian Tract 13 (London: Fabian Society, 1890).

But a tax upon the value of land has not such effect. Land does not have to be constantly supplied in order to meet the demand. Its price is always a monopoly value, and a tax which falls upon land value does not fall upon all land, but only upon valuable land, and that in proportion to its value.⁴⁷

George advocated “the single tax” on ground rent as a replacement for taxes on earned income (effort or enterprise). Because (at any rate below 100 percent) it would not reduce the quantity of land supplied or change its revenue-maximizing use, the single tax would create no economic distortions. Replacing all other taxes with the single tax would let an undistorted economy flourish, enriching workers. The general principle here, that the deadweight burden of extracting a given amount of tax revenue is kept to a minimum by taxing those factors or activities that shrink least in response to a tax, is today a standard article of neoclassical public finance theory.

George’s ideas influenced not only the Fabians but also the American politician William Jennings Bryan, twice defeated as the Democratic candidate for President. Georgist theory was even the inspiration for the board game Monopoly. The game’s original creator called it “The Landlord Game” and intended it to illustrate the unfairness of receiving rent based on the lucky ownership of advantageous plots.

Development and application of George’s thought continue to be promoted today in the United States by the Robert Schalkenbach Foundation and the *American Journal of Economics and Sociology*. In Great Britain the Henry George Foundation promotes George’s ideas through the magazine *Land & Liberty*, first published in 1894.

FROM GEORGISM TO THE NATIONALIZATION OF LAND AND CAPITAL

In place of taxing away pure ground rent from private landowners, in the Fabians’ view, the government could equivalently nationalize all land (paying only for improvements), rent plots to the highest bidders, and retain the entire rental income. During his first lecture tour George reportedly neither endorsed nor repudiated the British socialists’ characterization of his prescription as land nationalization. He did allow that “Taxation supplies the form for the virtual nationalization of the land.”⁴⁸

⁴⁷ “Henry George and the Socialists: A Debate,” *Standard* (29 October 1887). Available online at http://www.cooperativeindividualism.org/george_socialist_debate.html.

⁴⁸ Elwood P. Lawrence, “Uneasy Alliance: The Reception of Henry George by British Socialists in the Eighties,” *American Journal of Economics and Sociology* 11 (October 1951), pp. 62–3.

The Fabians extended the Ricardian-Georgist rent concept from land to capital goods (factories, machines, materials) and even to inborn talents, arguing that returns to inherited wealth and to differential talent are also “rents” in the sense of unearned income due merely to lucky possessions. In those cases too, they believed, taxation or nationalization would not appreciably reduce supply. Relatively large incomes of *all* sorts were mostly rents, readily appropriated. The economist George Stigler has pointed out that in fact few capital goods share with real estate the quality of having a fixed quantity and thereby a rising rental price with population growth. In response to population growth and increased demand, more machines can and will be built, holding down their rental price. In the other direction, taxation of machines will appreciably reduce the quantity produced. Shaw’s claim that “shareholder and landlord live alike on the produce extracted from their property by the labor of the proletariat” suggests that capital goods themselves are unproductive and that any income to their owners is an unwarranted subtraction from the income of labor. Such a claim, Stigler noted, “is simple Marxism, wholly inconsistent with the marginal utility theory of value he [Shaw] professed.”⁴⁹ In this judgment Stigler was joined by the Marxian economist Maurice Dobb.⁵⁰

In their move from virtual land nationalization to outright nationalization of *all* means of production the Fabians parted company with Henry George, whose own views were not socialist but instead free-market. George recognized that taxing capital goods would reduce their supply, because unlike land capital goods were the costly products of labor. George defended private property in capital goods by those who had produced them, and opposed the nationalization of industries (except perhaps of natural monopolies). He strongly defended free trade in *Protection or Free Trade* (1886). To him the great virtue of the single tax on land was that it would allow the removal all other taxes that discouraged private investment and enterprise. Elwood P. Lawrence has aptly commented: “It is a paradox in the history of nineteenth century ideas that Henry George, the American apostle of frontier individualism and free trade, should have gone down in British history as the godfather of British socialism.”⁵¹

Although the Ricardian theory assumed a competitive market for scarce land – ownership of land is dispersed and, as Shaw put it, people “bid against

⁴⁹ Stigler, *Essays in the History of Economics*, p. 277. Shaw’s statement is quoted by Stigler, *ibid.*, p. 276.

⁵⁰ Maurice Dobb, “Bernard Shaw and Economics,” in S. Winsten, ed., *G. B. S. 90: Aspects of Bernard Shaw’s Life and Work* (London: Dodd Mead, 1946).

⁵¹ *Ibid.*, p. 61.

one another for their dwellings and places of business” – both George and the Fabians likened the private ownership of land to a grant of monopoly privilege and likened differential land rents to the incomes of monopolists (whose revenues also exceed their costs). The Fabians extended this perspective to picture returns to capital and talent as returns to monopoly. Sidney Webb acknowledged that the industrialists “compete, it is true, among themselves,” but contended nonetheless that “as a class” the industrialists held monopoly power over workers.⁵² The Fabians thus argued that the bulk of nonwage incomes arose, in Cole’s words, “from the possession of differential monopolies.” The injustice and its remedy were obvious: the Fabians “maintained that these rents belonged properly not to the monopolists but to the community as a whole. . . . The economic problem was thus presented as a question of the socialization of monopoly incomes through social ownership of the monopolies.”⁵³

JEREMY BENTHAM

In Chapter 1 we noted the trend among leading British economists in the nineteenth century, beginning with Jeremy Bentham and progressing to John Stuart Mill, Henry Sidgwick, Alfred Marshall, and Arthur C. Pigou, toward endorsing an ever larger role for government in the economy. Fabian thought was the extrapolation of that trend.

Jeremy Bentham (1748–1832) was an influential political philosopher, legal reformer, and economist. He wrote prolifically, only a fraction of his output being published during his lifetime. A posthumous compilation of *The Works of Jeremy Bentham* (1843) ran to eleven volumes, and even that, to avoid scandal, excluded his works on religion.⁵⁴ One of his earliest works, *Defence of Usury* (1787), was a free-market critique of Adam Smith’s endorsement in *The Wealth of Nations* of legislation to cap loan interest rates at 5 percent.⁵⁵

In *An Introduction to the Principles of Morals and Legislation* (1789) Bentham offered his famous principle that “the greatest happiness of the

⁵² Sidney Webb, *Problems of Modern Industry* (London: Longmans, 1898), p. 237. Quoted by Stigler, *Essays in the History of Economics*, p. 279.

⁵³ G. D. H. Cole, “Fabianism.”

⁵⁴ Ten of the volumes are freely available online at the Online Library of Liberty, http://oll.libertyfund.org/index.php?option=com_staticxt&staticfile=show.php?person=172&Itemid=99999999.

⁵⁵ For a recent discussion, see Joseph Persky, “Retrospectives: From Usury to Interest,” *Journal of Economic Perspectives* (Winter 2007), pp. 227–36.

greatest number is the foundation of morals and legislation.” Any action, any law, any moral rule, should be judged solely on whether it promotes aggregate happiness. He defined happiness as the balance of pleasure over pain, and he proposed that we proceed in policy analysis as though this balance can be scientifically quantified for any person (or indeed any *animal* that feels pleasure and pain) and summed up for any society. Bentham called the basic principle for judging “the principle of utility.” Thus he wrote: “An action then may be said to be conformable to the principle of utility ... when the tendency it has to augment the happiness of the community is greater than any it has to diminish it.”⁵⁶ The political philosophy built on this approach became known as utilitarianism.

Bentham’s “utility,” the supposedly measurable balance of pleasure over pain for an individual or a society, is not the “utility” of modern microeconomic theory. The latter is merely a preference-ranking indicator specific to a single choosing individual. Benthamite utility is supposed to be a measure of experienced sensations, chosen or unchosen. Choice-theoretic utility, by contrast, is not a measure of experienced sensations, but rather an analytical construct for characterizing preferences, limited to the context of a contemplated decision. The neoclassical economists who first developed the “marginal utility” analysis of demand unfortunately often blurred together the two concepts. Vilfredo Pareto was among the first to insist on the distinction, and proposed to avoid confusion by calling the choice-theoretic concept “ophelimity.” The coinage did not catch on. The contrast between the two types of “utility” was decisively clarified by Lionel Robbins in 1932.⁵⁷

Adding and subtracting *preferences* across individuals makes no sense, and fortunately is not needed in economic theory to derive the individual’s demand curve or the market’s demand curve. Bentham, by contrast, needed his happiness measure to be summed over all individuals in order to judge quantitatively a law’s positive or negative impact on society’s aggregate happiness. *Cost-benefit analysis* takes much the same approach today, with dollar value to individuals (their willingness to pay) rather than pleasure-minus-pain as the measure that the analyst needs to sum across individuals.

Bentham never explained *how* to measure happiness. Neither he nor anyone else produced a hedometer, a device to quantify happiness by reading

⁵⁶ Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation* (Oxford: Clarendon Press, 1907), ch. 1, para. VI. Available online at <http://www.econlib.org/library/Bentham/bnthPML1.html>.

⁵⁷ Lionel Robbins, *An Essay on the Nature and Significance of Economic Science*, 3rd ed. (New York: New York University Press, 1984) [1st ed. 1932]. See Chapter 13 for more discussion of ophelimity and Paretian-Robbinsian welfare theory.

brain activity. Bentham acknowledged that the quantitative impact of a policy measure – such as redistributing wealth from a rich man to a poor man – on any individual's happiness could only be *assumed* and not really measured. But he considered assumptions about the impacts on various types of people justified on two conditions: "1st, If they approach nearer the truth than any others which can be substituted for them; 2nd, If with less inconvenience than any others they can be made the basis of legislation."⁵⁸ The first condition was vacuous: if measurement is infeasible, then there is no way to ascertain whether one set of quantitative assumptions approaches the truth more nearly than another. The second condition amounts to saying that heroic assumptions, no matter how false, are justified by their usefulness for the policy analyst who makes them.

Bentham acknowledged, in an unpublished manuscript, that summing happiness across individuals was a fiction that did not make rigorous sense. But he considered it a necessary fiction, indispensable for reaching definite policy conclusions:

'Tis vain to talk of adding quantities which after the addition will continue distinct as they were before, one man's happiness will never be another man's happiness; a gain to one man is no gain to another; you might as well pretend to add 20 apples to 20 pears, which after you had done that could not be 40 of any one thing but 20 of each just as there were before. This addibility of the happiness of different subjects, however, when considered rigorously it may appear fictitious, is a postulatium without the allowance of which all political reasoning is at a stand ...⁵⁹

Bentham's case for utilitarianism has been defended, modified, and criticized by a vast number of philosophers and economists over the years. A succinct critique of its foundational assumptions has been offered by the economist Anthony de Jasay. Following Bentham's own statement about apples and pears, de Jasay writes that, scientifically speaking, "aggregating the utilities of different persons, e.g. to subtract from the gains of some the losses of others, is just as nonsensical as taking four apples out of seven oranges."⁶⁰ On this view, nonsense that is useful for the utilitarian analyst is still nonsense.

⁵⁸ Bentham, *Theory of Legislation*, quoted by George Stigler, "The Development of Utility Theory," in Stigler, *Essays in the History of Economics* (Chicago: University of Chicago Press, 1965), p. 71.

⁵⁹ Bentham in an unnamed manuscript, quoted in *ibid.*, p. 72 n. 10.

⁶⁰ Anthony de Jasay, "More Nonsense on Stilts: Mr. Bentham Is At It Again," *Library of Economics and Liberty* (24 April 2003), available online at <http://www.econlib.org/LIBRARY/Columns/y2003/JasayBentham.html>.

UTILITARIANISM AND ECONOMIC POLICY

Bentham's utilitarianism has been viewed as a radically democratic doctrine for its day, telling governments to respect the material interests of the great mass of people rather than the traditional divine rights of monarchs or the prerogatives of landed aristocrats.⁶¹ Bentham did advocate universal suffrage in an era when relatively few had the right to vote. But telling government to serve the many governed rather than a few special interests was not a new idea in 1789. Bentham wrote after Adam Smith had defended the common man's interest against special-interest mercantilism in *The Wealth of Nations* of 1776, and after the American Declaration of Independence of the same year. Thomas Jefferson and the other American Revolutionaries drew on a long line of British antimonarchical and classical-liberal authors, going back at least to the "Leveller" pamphleteers of the 1640s who had argued that each man's natural dominion over self and property took priority over the powers claimed by governments. The celebrated philosopher John Locke in the 1680s had derived, from such a natural right to self-rule, the proposition that government can legitimately exercise only the powers that individuals have willingly delegated to it for the protection of their persons and property. In the Declaration's Lockean words, the people had a natural right to "alter or abolish" any government that overstepped the limited role to which they had agreed.⁶²

The grounding of Bentham's doctrine stood in stark contrast to that of Locke's.⁶³ In his book *Anarchical Fallacies* (1795), written in response to rights declarations issued during the French Revolution, Bentham famously declared that "*Natural Rights* is simple nonsense; natural and imprescriptible rights, rhetorical nonsense – nonsense on stilts."⁶⁴ Bentham endeavored to put the case for classical liberalism and laissez-faire on a more scientific foundation. But in his endeavor he provided the foundation

⁶¹ Stephen G. Medema and Warren J. Samuels, *The History of Economic Thought: A Reader* (London: Routledge, 2003), p. 180.

⁶² On the influence of Locke and others on American colonial thinkers see Bernard Bailyn, *The Ideological Origins of the American Revolution* (Cambridge, MA: Belknap Press, 1992).

⁶³ The contrast was noted, and the Benthamite position on rights incisively criticized from a radical Lockean perspective, by Thomas Hodgskin, *The Natural and Artificial Right of Property Contrasted* (London: B. Steil, 1832). Available online at http://files.libertyfund.org/files/323/0419_Bk.pdf.

⁶⁴ Jeremy Bentham, *Anarchical Fallacies: Being an Examination of the Declarations of Rights Issued during the French Revolution*, in John Bowring, ed., *The Works of Jeremy Bentham* (Edinburgh: William Tait, 1843), Vol 2.

on which later utilitarians like Mill, Marshall, Pigou, and the Fabians would build wider cases for government intervention.⁶⁵ Utility-maximizing policies for Bentham included universal suffrage, free markets, and economy in government. Utility-maximizing policies for the Fabians included universal suffrage, socialism, and larger government.

The classical-liberal English jurist A. V. Dicey attributed the transformation in utilitarian policy prescriptions to three factors operating in the last third of the nineteenth century:

Somewhere between 1868 and 1900 three changes took place which brought into prominence the authoritative side of Benthamite liberalism. [1] Faith in *laissez faire* suffered an eclipse; hence the principle of utility became an argument in favour, not of individual freedom, but of the absolutism of the state. [2] Parliament under the progress of democracy became the representative, not of the middle classes, but of the whole body of householders; parliamentary sovereignty, therefore, came to mean, in the last resort, the unrestricted power of the wage-earners. [3] English administrative mechanism was reformed and strengthened. The machinery was thus provided for the practical extension of the activity of the State; but, in accordance with the profound Spanish proverb, “the more there is of the more the less there is of the less,” the greater the intervention of the government the less becomes the freedom of each individual citizen. Benthamites, it was then seen, had forged the arms most needed by socialists. Thus English collectivists have inherited from their utilitarian predecessors a legislative doctrine, a legislative instrument, and a legislative tendency pre-eminently suited for the carrying out of socialistic experiments.⁶⁶

We noted the decline of faith in *laissez-faire* in [Chapter 1](#). In essence, the Fabians got socialist answers from utilitarian analysis by making a lower estimate than Bentham had of the competence of free markets to benefit the public widely, and a higher estimate of the competence of governments to do so. They lowered the market’s estimate principally by amplifying the Georgist doctrine, already implicit in Ricardian rent theory, of a clash between the interests of wage-earners and the interests of other market participants.

G. D. H. Cole summarized the contrast in the policy purposes for which Bentham and the Fabians applied utilitarianism:

Bentham had used his principle of “the greatest happiness of the greatest number” chiefly to justify the abolition of bad forms of state intervention.

⁶⁵ See Ellen Frankel Paul, *Moral Revolution and Economic Science: The Demise of Laissez-Faire in Nineteenth-Century British Political Economy* (Westport, CT: Greenwood Press, 1979).

⁶⁶ A. V. Dicey, *Lectures on the Relationship Between Law and Public Opinion in England during the Nineteenth Century* (London: Macmillan, 1919), p. 310. Numbers added.

The Fabians now applied it to justify good forms, looking back on the early Benthamite work of destruction as admirable, but desiring to complement it by construction.⁶⁷

This captures the contrast well, though one is entitled to doubt that the Fabians *admired* in any way but grudgingly the early Benthamites' efforts to eliminate state intervention into markets.

JOHN STUART MILL

James Mill was a close associate of Bentham, an enthusiastic utilitarian, and a consistent defender of laissez-faire. He home-schooled his son John Stuart Mill (1806–73), a child prodigy who read and spoke Greek and Latin at a young age. John Stuart Mill worked in London as an officer of the British East India Company. As an economist he is best known for *The Principles of Political Economy* (1848 and many later editions), a sophisticated restatement of Ricardo's classical economics. As a political philosopher he is well known for defending a version of classical liberalism in *On Liberty* (1859), where he wrote that "the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others."⁶⁸ Only two years later he seemingly retracted that kind of rights-talk in *Utilitarianism* (1861). There he endorsed Bentham's formula that "actions are right in proportion as they tend to promote happiness; wrong as they tend to produce the reverse of happiness," where happiness denotes "pleasure, and the absence of pain."⁶⁹

J.S. MILL BETWEEN BENTHAM AND THE FABIANS

J. S. Mill in the *Principles* nominally accepted laissez-faire or noninterference as the default rule for government policy beyond a night-watchman role. That is, he placed the burden of proof on anyone who proposes a new government intervention into the market. But meeting Mill's burden required only showing that the intervention was expedient in utilitarian terms (not also showing that it respected moral side-constraints). Mill

⁶⁷ Cole, "Fabianism."

⁶⁸ John Stuart Mill, *On Liberty*, in *The Collected Works of John Stuart Mill, Volume XVIII – Essays on Politics and Society Part I*, ed. John M. Robson (Toronto: University of Toronto Press, 1977), p. 223.

⁶⁹ John Stuart Mill, *Utilitarianism*, in *The Collected Works of John Stuart Mill, Volume X – Essays on Ethics, Religion, and Society*, ed. John M. Robson (Toronto: University of Toronto Press, 1985), p. 210.

believed that this had been shown in many cases. His effective rule was therefore Utilitarian expediency:

We sometimes, for example, hear it said that governments ought to confine themselves to affording protection against force and fraud: that, these two things apart, people should be free agents.... But why should people be protected by their government, that is, by their own collective strength, against violence and fraud, and not against other evils, except that the *expediency* is more obvious?⁷⁰

J. S. Mill's father, as it happens, was one of those who said that governments ought to confine themselves to the night-watchman roles of affording protection against force and fraud.⁷¹ The Lockean answer to Mill's rhetorical question was that defense against violence and fraud is all that people in a state of nature would agree to have government do. Mill had a wider conception of what everyone would agree to have government do.

Mill contended that no one, for starters, objected to government coining money. Here he overlooked the British political economist Thomas Hodgskin and the social theorist Herbert Spencer. Hodgskin in *Popular Political Economy* (1827), and Spencer in *Social Statics* (1851), objected that government coinage was an unwarranted monopoly prone to inefficiency and abuse, and so they favored competition among private mints.

No one, Mill continued, objected to government establishing standard weights and measures, "paving, lighting, and cleansing the streets and thoroughfares," or managing harbors, lighthouses, sea walls, and river embankments. (Again he overlooked *laissez-faire* dissenters.) He concluded:

Examples might be indefinitely multiplied without intruding on any disputed ground. But enough has been said to show that the admitted functions of government embrace a much wider field than can easily be included within the ring-fence of any restrictive definition, and that it is hardly possible to find any ground of justification common to them all, except the comprehensive one of general expediency; nor to limit the interference of government by any universal rule, save the simple and vague one, that it should never be admitted but when the case of expediency is strong.⁷²

⁷⁰ John Stuart Mill, *The Principles of Political Economy* (Books III–V and Appendices), in *The Collected Works of John Stuart Mill, Volume III*, ed. John M. Robson (Toronto: University of Toronto Press, 1965), p. 800.

⁷¹ James Mill, "Government," in *Supplement to the Encyclopedia Britannica* (London: J. Innes, 1825).

⁷² Mill, *The Principles of Political Economy* (Books III–V and Appendices), pp. 803–4. On *Liberty's* rule – that the "only purpose" for which government may "rightfully" coerce an individual is "to prevent harm to others" – would seem to have constituted the "ring-fence" of a "restrictive definition."

In his own application of utilitarianism, Mill found that the case of expediency was strong enough for a wider set of government roles than did Bentham. Though Mill's set remained narrower than the set of roles governments play today, he was moving in the direction of wider government. In addition to the roles listed in the previous paragraph, his *Principles* endorsed government financing of colonization (to which Adam Smith had cogently objected), poor relief, scientific research, and education. Where private action failed to provide them sufficiently, government should provide "roads, docks, harbours, canals, works of irrigation, hospitals, schools, colleges, printing-presses." Mill endorsed the Bank of England's statutory monopoly of banknote-issue in London, a policy that many other economists of the day opposed. He favored an inheritance tax to break up aristocratic bequests, especially of land.

Through successive editions, the *Principles* became notably less critical and more favorable to the goal of equalizing the distribution of wealth. Mill advanced the utilitarian case for wealth redistribution by proposing that there is a major difference, with respect to the scope for legislative intervention, between the *production* and the *distribution* of goods:

The laws and conditions of the production of wealth, partake of the character of physical truths. There is nothing optional, or arbitrary in them. . . . [T]his is not so with the distribution of wealth. That is a matter of human institution solely. The things once there, mankind, individually or collectively, can do with them as they like.⁷³

By speaking of "things once there" in the last sentence of this passage Mill may seem to have suggested that the amount of wealth that individuals produce is independent of whether they or others will receive it. But as the first two sentences indicated, and as he went on to explain, wealth production is not in fact like the rain. The complete equalization of income, to take the extreme case, would greatly reduce anyone's incentive to produce. The results of your extra effort would merely go into the common pool and thereby end up almost entirely in the hands of strangers. The disincentive to effort from such a policy would drastically reduce the aggregate amount of income available for distribution. More generally, how much you expect to keep of what you produce affects how much time and effort you choose to devote to producing. Mill concluded: "Society

⁷³ John Stuart Mill, *The Principles of Political Economy with Some of Their Applications to Social Philosophy* (Books I–II), in *The Collected Works of John Stuart Mill, Volume II*, ed. John M. Robson (Toronto: University of Toronto Press, 1965), pp. 199–200.

can subject the distribution of wealth to whatever rules it thinks best, but what practical results will flow from the operation of those rules, must be discovered, like any other physical or mental truths, by observation and reasoning.”⁷⁴

In this way Mill framed the appropriate degree of redistribution as an empirical question: Do the utilitarian benefits of redistributing earnings exceed the disincentive costs? Arthur C. Pigou in 1935 argued that a professional consensus among economists would answer the question with a firm “yes, up to a point,” that point being where society’s net benefits (measured in units of “satisfaction”) are maximized:

Prima facie all large inequalities of income entail social loss; for the ninth course of the plutocrat’s dinner, despite the indirect benefit that it may confer on his doctor, yields much less satisfaction on the whole than the milk which the cost of it might have secured for a poor man’s child.... Here the State planner has the good wishes of all human men. But, none the less, he must always be on his guard. He must not, in his eagerness to improve the distribution of income, so act as to dry up the sources from which it is produced. This is a very old problem. Economists to-day are, I think, agreed that taxes on the rich for the benefit of the poor can be pushed much farther than their predecessors supposed without serious damage to production.⁷⁵

In market exchange, Mill noted, income is a *quid pro quo* for your cooperation in production. The size of your income is what, in light of your inherited abilities (and, we might add, your work effort and investments in acquiring marketable skills), other market participants are willing to pay you for your labor, or for your produce, or for the services of assets that you own. Mill preferred a greater equality of income than *quid pro quo* market exchange would provide, and grounded his preference in egalitarian moral criteria. So long as the disincentive effects are not too great, he preferred income determination by egalitarian moral criteria over determination by voluntary exchange and its *quid pro quo* moral criteria. He wanted the state to enforce his preference.

In a passage of his work *Auguste Comte and Positivism* (1865), Mill declared that “we entirely subscribe” to the socialist Comte’s view, “which has great beauty and grandeur in it,” that

the moral claim of anyone in regard to the provision for his personal wants, is not a question of *quid pro quo* in respect to his cooperation, but of how much

⁷⁴ Ibid., p. 200.

⁷⁵ A. C. Pigou, *Economics in Practice* (London: Macmillan, 1935), pp. 121–2.

the circumstances of society permit to be assigned to him, consistently with the just claims of others.⁷⁶

That is, how much stuff you deserve to get is not a matter of how much you contribute (in the estimation of those with whom you might deal), but a matter of sharing out among its members whatever society has to share. Social shares should be like family shares. The market's method of determining your income, because it is not a matter of sharing, is less than fair. Mill grudgingly recognized that the market might currently be the least bad system distributive available, but he was open to alternative systems:

The rough method of settling the laborer's share of the produce, the competition of the market, may represent a practical necessity, but certainly not a moral ideal. Its defense is, that civilization has not hitherto been equal to organizing anything better than this first rude approach to an equitable distribution. Rude as it is, we for the present go less wrong by leaving the thing to settle itself than by settling it artificially in any mode which has yet been tried.⁷⁷

As his career progressed, the "moral ideal" of egalitarian redistribution increasingly swayed Mill to downplay the "practical necessity" case for competitive market determination of incomes on the *quid pro quo* principle. In his posthumously published *Autobiography*, Mill explained that, in his early writings,

I had seen little further than the old school of political economists into the possibilities of fundamental improvement in social arrangements.... The notion that it was possible to go further than this in removing the injustice – for injustice it is, whether admitting of a complete remedy or not – involved in the fact that some are born to riches and the vast majority to poverty, I then reckoned chimerical, and only hoped that by universal education, leading to voluntary restraint on population, the portion of the poor might be made more tolerable. In short, I was a democrat, but not the least of a Socialist.

Mill's later writings showed the influence of Harriet Taylor, an Owenite socialist whom he married in 1851 after more than twenty years of friendship. As a couple, he wrote in his *Autobiography*, "our ideal of ultimate improvement went far beyond Democracy, and would class us decidedly under the general designation of Socialists." If a form of socialism compatible with individual liberty could be found, he and Harriet would find its approach to income distribution attractive:

⁷⁶ John Stuart Mill, *Auguste Comte and Positivism*, in *The Collected Works of John Stuart Mill, Volume X – Essays on Ethics, Religion, and Society*, ed. John M. Robson (Toronto: University of Toronto Press, 1965), pp. 340–1.

⁷⁷ *Ibid.*, p. 341.

While we repudiated with the greatest energy the tyranny of society over the individual, which most Socialistic systems are supposed to involve, we yet looked forward to a time ... when the division of the produce of labour, instead of depending in so great a degree, as it now does, on the accident of birth, will be by concert on an acknowledged principle of justice.... The social problem of the future we considered to be, how to unite the greatest individual liberty of action, with a common ownership in the raw material of the globe, and an equal participation of all in the benefits of combined labour.⁷⁸

The Fabian socialists accordingly had a great respect for Mill as a utilitarian who had moved a long way from his father's laissez-faire toward socialism. In Cole's words:

John Stuart Mill they recognized as standing at the point of transition between the two interpretations of Utilitarianism. Although he sympathized with the socialism of his day, he was too deeply rooted in old traditions for a complete conversion. The Fabians regarded themselves as completing the work which he had begun and thus found further cause to emphasize their continuity with older liberal thought.⁷⁹

It was in this manner that "liberal thought" or "liberalism" in economic policy gradually changed its meaning from a doctrine of minimal government, free markets, and free trade – what is today called "classical liberalism" or "libertarianism" or (by its opponents) "neo-liberalism" – into the doctrine of a more extensive government role in the economy associated with the Fabian Society or, in the United States, with the "modern liberalism" of the New Deal and the Great Society.

⁷⁸ John Stuart Mill, *Autobiography*, in *The Collected Works of John Stuart Mill, Volume I – Autobiography and Literary Essays*, ed. John M. Robson and Jack Stillinger (Toronto: University of Toronto Press, 1981), p. 239.

⁷⁹ Cole, "Fabianism."

The Mont Pelerin Society and the Rebirth of Smithian Economics

In a small Swiss village above the northern shore of Lake Geneva, in April 1947, the German economist Walter Eucken peeled and ate an orange with obvious delight. It was his first orange in many years. His visit to Switzerland, to attend an international meeting of three dozen classical liberal academicians and journalists, was his first trip outside Germany since the end of the Second World War.¹ Despite his strong opposition to the Nazis, Eucken had remained in Germany for the duration of the war, where central control of the economy made oranges unavailable (except perhaps to the ruling elite). The German economy remained centrally controlled by the occupying powers immediately after the war's 1945 end. Eucken had almost been unable to travel to Switzerland because of the difficulty of securing an administrative authorization to leave the country.

THE POSTWAR CLIMATE OF OPINION

In a November 1992 interview, Milton Friedman recalled the climate of opinion in the 1940s and 1950s: "It was a climate in which those of us who believed in free markets and in a socially and politically free society were a tiny, very much beleaguered minority. Collectivism – economic, social, political – was very much in the ascendancy."²

¹ The American economist George Stigler, also in attendance, wrote of Eucken's enjoyment of the orange in his recollections of the conference. George Stigler, *Memoirs of an Unregulated Economist* (New York: Basic Books, 1985). See also Greg Kaza, "The Mont Pelerin Society's 50th Anniversary," *Freeman* (June 1997), available online at <http://www.thefreemanonline.org/featured/the-mont-pelerin-societys-50th-anniversary/>.

² "Interview with Milton Friedman," *Region* (June 1992), Federal Reserve Bank of Minneapolis, available online at <http://www.minneapolisfed.org/pubs/region/92-06/int926.cfm>.

Postwar Britain's intellectual climate and economic policy direction, as we have seen, reflected the influence of more than sixty years of activity by the Fabian Society. In 1947 Friedrich Hayek organized the first meeting of an alternative society that would have a similarly long-range influence on economic policies, though on the other side of the debate, and by different means.

HAYEK FOUNDS THE MONT PELERIN SOCIETY

Given the near-consensus in favor of central planning, Hayek worried about the prospects for classical liberalism and the free society. To rally the remaining classical liberal intellectuals, in the hope that they could strengthen their arguments through constructive mutual criticism, he brought together a group of thirty-nine invitees (thirty-six participants and three observers) for a ten-day conference beginning on the 1 April 1947. They met at the Hotel du Parc in the village of Mont Pélerin, Switzerland, reached by a one-mile funicular railway ride uphill from the lakeside town of Vevey. Toward the end of the meeting the group decided to name itself the Mont Pelerin Society.³

Among those joining Hayek for the conference were two of his former Viennese colleagues now teaching economics in the United States (Ludwig von Mises and Fritz Machlup); three economists from the University of Chicago (Aaron Director, Frank Knight, and Milton Friedman); two Ivy League economists (Frank Graham and George Stigler, the latter of whom, like Hayek, would join the University of Chicago faculty during the 1950s); three American journalists (John Davenport, Henry Hazlitt, Felix Morley); the founder and two economists from the United States' just-established Foundation for Economic Education (Leonard Read, F. A. Harper, and V. Orval Watts); an economist (Maurice Allais), a law professor (Francois Trevous) and a political philosopher (Bertrand de Jouvenal) from France; Hayek's close colleague from the London School of Economics (Lionel Robbins); two more English economists (Stanley Dennison and John

³ Max Hartwell, *A History of the Mont Pelerin Society* (Indianapolis: Liberty Fund, 1995), pp. 43–4, reports that Hayek had proposed the name “The Acton-Tocqueville Society” in honor of the nineteenth-century liberals Lord Acton and Alexis de Tocqueville. Some conference participants suggested other figures instead (Adam Smith, Edmund Burke), while Friedman thought that the society's name should refer to its principles rather than to persons. After an inconclusive discussion, the German-born economist Karl Brandt, who was teaching at Stanford University after having fled Nazi Germany in the 1930s, suggested the neutral geographical name.

Jewkes); a British historian (Veronica Wedgwood, the only female participant); two European philosophers (Michael Polanyi and Karl Popper); two Swiss economists (William Rappard and Albert Hunold); and two German economists (Walter Eucken and Wilhelm Röpke, both of whom will figure prominently in our next chapter).⁴ Four participants (Hayek, Friedman, Stigler, and Allais) would later be honored with the Nobel Memorial Prize in Economics.

Conference and travel expenses were provided by Swiss and American foundations eager to advance the classical liberal principles of *The Road to Serfdom*. On receiving their invitations, George Stigler wrote jovially to Milton Friedman that “a junket to Switzerland in April is contemplated to save liberalism.” It was the first trip abroad for Friedman, 34, and for Stigler, 36. Friedman in his memoirs noted that it also “marked the beginning of my active involvement” in issues of public policy.⁵ He told an interviewer in 1995:

What really got me started in policy and what led to *Capitalism and Freedom* [his popular 1963 book] was, in an indirect way, the Mont Pelerin Society. The first Mont Pelerin Society meeting . . . was the first time that I came into contact with people like Hayek, Lionel Robbins, and the European contingent of that time. That widened my perspective about issues and policy.⁶

Today the society has grown to more than five hundred members. It holds a general international meeting every other year, and regional meetings in between.

In contrast to the Fabian Society, the Mont Pelerin Society (MPS) has never issued Tracts, or become affiliated with any political party, or otherwise tried to influence public opinion or policy makers directly. It has operated at the earliest stage of the intellectual structure of production, promoting academic discussion and networking among its members. The task of turning theories into policy studies and reform proposals has been undertaken by a variety of free-market “think tanks” in various countries, many of whose leaders and economists have been MPS members. The oldest free-market American think tank is the Foundation for Economic Education, founded in 1946, which as noted was represented at the first

⁴ The list of conference attendees, the schedule of conference sessions, and the Draft Statement of Aims are provided as Appendices 2–1, 2–2, and 2–3 in *ibid.*, pp. 45–50.

⁵ Milton Friedman and Rose D. Friedman, *Two Lucky People: Memoirs* (Chicago: University of Chicago Press, 1998), pp. 158–9.

⁶ Brian Doherty, “The Best of Both Worlds: Milton Friedman Reminisces about His Career as an Economist and His Lifetime ‘avocation’ as a Spokesman for Freedom,” *Reason* (June 1995).

MPS meeting. The most important free-market think tank in Great Britain since its founding in 1955 has been the Institute of Economic Affairs in London. The institute's founder, Antony Fisher, who was personally encouraged by Hayek to aim at influencing opinion-makers rather than entering electoral politics, liked to describe his project as an "anti-Fabian Society."⁷ He told the institute's first director, Ralph Harris, "I'd like to create something which will do for the non-Labour parties what the Fabian Society did for the Labour Party."⁸

The MPS has itself remained farther above the fray. Friedman told his 1992 interviewer regarding the MPS:

Its original purpose was to promote a classical liberal philosophy, that is, a free economy, a free society, socially, civilly and in human rights. I believe that it has made an important contribution to that purpose. It has made that contribution not by propaganda but by offering a place where people of like mind could get together, discuss their problems, and resolve difficulties they had about both philosophy and policy.⁹

MPS members have been more diverse than the Fabians in their philosophies of economic policy, which range from conservative to classical liberal to libertarian to anarcho-capitalist. John Kenneth Galbraith once joked about the internal debates of the MPS and its lack of influence (as of 1962):

Not long after the end of World War II a sizable number of deeply concerned scholars from the United States and Western Europe gathered on a mountain top in Switzerland to form an organization devoted to international opposition to planning. It never developed any great influence, partly, I am told, because of an ideological schism over whether navies should be socially owned or privately provided on a lease-hire system by the private sector.¹⁰

According to those who were there, the actual disagreements at the first meeting were over policies regarding agriculture, the gold standard, trade unions, monopoly, and the distribution of income.¹¹ Economist Philip

⁷ Fisher as quoted by Richard Cockett, *Thinking the Unthinkable: Think-Tanks and the Economic Counter-Revolution, 1931–1983* (London: Fontana Press, 1995), p. 134. Cockett provides an informative account of the ideas and policy impact of the Institute of Economic Affairs (IEA) and other market-liberal think tanks in Britain.

⁸ As quoted by John Blundell, *Waging the War of Ideas*, 2nd ed. (London: Institute of Economic Affairs, 2001), p. 17.

⁹ "Interview with Milton Friedman."

¹⁰ John Kenneth Galbraith, *Economic Development in Perspective* (Cambridge, MA: Harvard University Press, 1962), p. 31.

¹¹ Friedman and Friedman, *Two Lucky People*, pp. 160–1; George Stigler, *Memoirs of an Unregulated Economist*, p. 145.

Mirowski, calling the MPS a “neoliberal thought collective,” has recently commented that the society’s efforts “have culminated in the last sixty years in a reasonably coherent and effective set of doctrines, even though when it started out, and for some time thereafter, it was very hard for Mont Pelerin participants and their fellow travelers to come to agreement over ideas and politics.”¹²

Thirty-six years after Galbraith’s remark – after the elections of Margaret Thatcher and Ronald Reagan, the fall of the Berlin Wall, the decline of enthusiasm for a planned economy, and the reemergence of free-market ideas – the intellectual historian Donald Winch accorded the Mont Pelerin Society greater respect than Galbraith had for its influence in the clash of economic ideas, while rightly noting that its members’ ideals had hardly triumphed completely:

The transformation in official economic thinking resulting from the revival of free-market economics and monetarism during the past twenty years is, by any standards, a remarkable intellectual and political event. It will become a major preoccupation of historians of economic policy making during the second half of the twentieth century, long after the mood of triumphalism provoked by the “Thatcher revolution” and by events in Eastern Europe has subsided. The members of the Mont Pelerin Society (MPS), among them no less than seven winners of the Nobel Prize in Economics, have undoubtedly been prominent in keeping economic liberalism alive since the founder of the Society, Friedrich Hayek, issued his warning about the pervasive threat posed by collectivism in his *Road to Serfdom* in 1947 [*sic*]. In those “dark days” of East-West divide and what has come to be known as the post-war Keynes-Beveridge consensus, it did not look as though the future would belong quite as much as it now does to free-market forms of capitalism – though judged by public expenditure levels “rolling back the state” has proved more difficult to achieve.¹³

The intellectual historian Richard Cockett has offered a more emphatic assessment, writing that the world “probably now owes more to the MPS than any other single organization of intellectuals,” and adding that “Hayek

¹² Philip Mirowski, “Postface: Defining Neoliberalism,” in Philip Mirowski and Dieter Plehwe, eds., *The Road from Mont Pelerin: The Making of the Neoliberal Thought Collective* (Cambridge, MA: Harvard University Press, 2009), pp. 417–18. For details of some debates within the society, see other chapters in the Mirowski-Plehwe volume.

¹³ Donald Winch, Review of *A History of the Mont Pelerin Society* by R. M. Hartwell, *English Historical Review*, vol. 113 (June 1998), pp. 803–4. The seven Nobel laureates Winch mentioned included the four original attendees plus the later society members Gary Becker, James M. Buchanan, and Ronald Coase. Vernon Smith has since raised the number to eight.

and the Mont Pelerin Society are to the twentieth century what Karl Marx and the First International were to the nineteenth century.”¹⁴

THE RATIONALE FOR AN INTERNATIONAL SOCIETY OF CLASSICAL LIBERALS

In his opening address to the 1947 conference Hayek explained his reason for assembling the group:

It seems to me that effective endeavors to elaborate the general principles of a liberal order are practicable only among a group of people who are in agreement on fundamentals, and among whom certain basic conceptions are not questioned at every step. But not only is, at this time, the number of those who in any one country agree on what seems to me the basic liberal principles small, but the task is a very big one, and there is much need for drawing on as wide an experience under varying conditions as possible.

An international meeting was necessary not only to achieve a critical mass, given the small numbers in any one country who shared the common ideals, but to preserve the cosmopolitan (nonnationalistic) character of classical liberalism: “The need for an international meeting ... seemed to me especially great as a result of the war,” which had “inevitably, and in the best of us, created a self-centeredness and nationalist outlook which ill accords with a truly liberal approach to our problems.”¹⁵

A statement of aims was adopted at the conference – drafted by Lionel Robbins, presented by Hayek, signed by all but one of the participants¹⁶ – affirming the principles of “human dignity and freedom,” “freedom of thought and expression,” “the rule of law,” “private property and the competitive market,” “diffused power,” “peace and liberty,” and “harmonious international relations.” It concluded:

The group does not aspire to conduct propaganda. It seeks to establish no meticulous and hampering orthodoxy. It aligns itself with no particular party. Its object is solely, by facilitating the exchange of views among minds inspired by certain ideals and broad conceptions held in common, to contribute to the preservation and improvement of the free society.¹⁷

¹⁴ Richard Cockett, “Secret Society for World Freedom,” *Sunday Times*, 13 April 1997.

¹⁵ F. A. Hayek, “Opening Address to a Conference at Mont Pélérin,” in *Studies in Philosophy, Politics and Economics* (London: Routledge, 1967), pp. 149–50.

¹⁶ Allais chose not to sign the statement of principles. Influenced by Henry George, he dissented from the principle of private property in land. Allais did join the society some years later.

¹⁷ Hartwell, *History of the Mont Pelerin Society*, pp. 41–2.

THE CLASSICAL LIBERAL TRADITION

Hayek's strategic advice for his fellow classical liberal intellectuals – drawn in part from observing the success of the Fabian Society – was to take the idealistic high ground, to develop an “explicit general philosophy of social policy,” a “system or theory which raises new problems and opens new horizons,” an inspiring “Utopian” vision of the free society. In his essay on “The Intellectuals and Socialism” (1949), he wrote:

The main lesson which the true liberal must learn from the success of the socialists is that it was their courage to be Utopian which gained them the support of the intellectuals and therefore an influence on public opinion which is daily making possible what only recently seemed utterly remote. . . .

We must make the building of a free society once more an intellectual adventure, a deed of courage. What we lack is a liberal Utopia, a programme which seems neither a mere defense of things as they are nor a diluted kind of socialism, but a truly liberal radicalism which does not spare the susceptibilities of the mighty . . . , which is not too severely practical and which does not confine itself to what appears today as politically possible.¹⁸

THE SPIRIT OF ADAM SMITH

When Hayek spoke of “once more” developing an adventurous intellectual vision of the free society, he was hinting at recapturing the enthusiastic spirit of the classical liberal social theorists of the eighteenth and nineteenth centuries. Adam Smith was the single most important founder of the tradition of classical liberal political economy that Hayek and other members of the Mont Pelerin Society sought to revive. Though Smith is often described as the father of the discipline of economics, because he took a more systematic approach to economic topics than earlier writers, his work also ranged across moral philosophy, history, and jurisprudence. Smith has become an ideological touchstone for contemporary free-market thinkers, somewhat to the frustration of scholars who emphasize the nuances in Smith's own thinking.

The Mont Pelerin Society's linkage to Adam Smith was made explicit in a welcoming address on the first morning of the 1947 conference by the Swiss academician William Rappard, cofounder of Geneva's Graduate Institute of International Studies. Rappard saw the conference's mission as carrying

¹⁸ F. A. Hayek, “The Intellectuals and Socialism,” in *Studies in Philosophy, Politics and Economics*, pp. 190, 194.

forward both the analytical and the normative sides of Smith's work. He told the group:

Modern economic liberalism, as I see it, is the legitimate off-spring of the union between two first cousins: Adam Smith's penetrating and essentially sound scientific analysis of the economic world of his day, and Adam Smith's inborn love of freedom, constructive effort and wealth.¹⁹

ADAM SMITH

Adam Smith (1723–90) was an only child raised by a widowed mother. His father, a Scottish customs official, died just before his birth. At the age of about three, while playing outside his uncle's house, young Adam was reportedly abducted by a group of vagabonds (sometimes misleadingly called "gypsies"). His uncle fortunately soon noticed Adam's absence, found the abductors in the nearby woods, and brought the boy back.²⁰ In his teenage years (14 to 17) Smith attended the University of Glasgow, where he studied moral philosophy under Francis Hutcheson. He spent the next seven years at Oxford University on a fellowship. He returned to Glasgow and became professor of moral philosophy in 1751. He published his first book, *The Theory of Moral Sentiments*, in 1759. By the same year there existed, in part of his posthumously published *Lectures on Jurisprudence*, an early sketch of what would become his great work on political economy. In 1763–4 he toured Europe as private tutor to Henry Scott, the 3rd Duke of Buccleuch. While the young duke hobnobbed and partied, Smith met with French *Économistes* – and wrote. After a long gestation period *An Inquiry into the Nature and Causes of the Wealth of Nations* appeared in 1776. Ironically, in light of his support for free trade, Smith spent the last twelve years of his life as a commissioner of customs in Scotland administering taxes on trade.

ADAM SMITH AS INTELLECTUAL TOUCHSTONE AND ICON

Evidence of Smith's continuing influence on economists and policy makers comes from a wide variety of sources, some of them surprising. Arnold Schwarzenegger opened a *Wall Street Journal* opinion piece, published less than two weeks before his 2003 election as governor of California, with

¹⁹ Quoted by Cockett, "Secret Society for World Freedom," p. 111. Rappard's metaphor was presumably not meant to imply that he endorsed procreation by literal first cousins.

²⁰ Dugald Stewart, "Account of the Life and Writings of Adam Smith, LL.D." [1793], ed. I. S. Ross, in Adam Smith, *Essays on Philosophical Subjects*, ed. W. P. D. Wightman and J. C. Bryce (Indianapolis: Liberty Fund, 1982), pp. 269–70.

the statement that “the two people who have most profoundly impacted my thinking on economics are Milton Friedman and Adam Smith.”²¹ *The Times* of London reported in 2006: “When Warren Buffett, the world’s second richest man, gave Bill Gates’s charitable foundation \$31 billion (£16 billion), Gates gave him his personal copy of *The Wealth of Nations*.”²² In case you are wondering about the value of the book gift, in December 2008 a 1776 first edition in near-fine condition sold at auction for £63,650 (US\$98,403).²³

Time magazine put Adam Smith’s profile on its 14 July 1975 cover, under the banner “Can Capitalism Survive?” (A word balloon had Smith saying, “Don’t count me out, folks!”) Six years later (6 July 1981) the magazine reported: “The most popular neckpiece around the Reagan White House is one bearing tiny cameo profiles of Adam Smith, the 18th century Scot whose *An Inquiry Into The Nature and Causes of the Wealth of Nations* limned the classic argument for getting government off the back of business.” *Time*’s description of the book’s argument actually had things upside-down. In Smith’s eyes, under the mercantilist system that his book attacked, government policy was a horse ridden by privilege-seeking businessmen.

The Bank of England placed Adam Smith’s image and a short quotation from *The Wealth of Nations* on its £20 banknotes beginning March 2007. In this tribute there was an unnoticed irony. Smith was a critic of monopoly privileges, such as the Bank of England’s exclusive privilege in his day of issuing banknotes in greater London. Smith’s Scotland had no such privileged bank, and he defended its system of openly competitive banknote issue.²⁴

THE FIRST MESSAGE OF *THE WEALTH OF NATIONS*

Smith began *The Wealth of Nations* with the proposition that what matters for a nation’s well-being is not its hoard of accumulated treasure (as two centuries of mercantilist writers had believed), but its annual output or “produce,” the flow of goods and services, or what we today call national income or gross domestic product. It is this annual output that provides, either directly or by being traded for imports, “all the necessaries and

²¹ Arnold Schwarzenegger, “My Economic Policy,” *Wall St. Journal* (24 September 2003).

²² Gabriel Rozenberg, “£20 Reward for the Father of Free Trade,” *Times* (30 October 2006), available online at <http://www.timesonline.co.uk/tol/news/uk/article617514.ece>.

²³ Available online at http://www.sothebys.com/app/live/lot/LotDetail.jsp?lot_id=159509444.

²⁴ Smith curiously refrained, however, from openly criticizing the Bank of England’s monopoly in a manner consistent with his own views. See Edwin G. West, “Adam Smith’s Support for Money and Banking Regulation: A Case of Inconsistency,” *Journal of Money, Credit and Banking* 29 (February 1997), pp. 127–34.

conveniences of life which [the nation] annually consumes.” The Kingdom of Spain in Smith’s day had large hoards of gold and silver taken from the New World, but lower per capita consumption than Britain or the Netherlands.

The nation’s annual output of goods and services is not fixed, but can grow. Smith emphasized that prosperity is promoted by the division of labor, or specialization, and by freedom of trade. Specialization goes hand-in-hand with trade, because the bottom-line benefit to an individual from specializing in producing one good is limited by the ease with which he can trade that good for everything else he wants. It pays a farmer to grow nothing but olives, for example, only if he can easily enough trade olives for everything else he hopes to consume. In Smith’s memorable phrase, “the division of labour is limited by the extent of the market.” Government restrictions on interregional trade – tariffs or import quotas – shrink the extent of the market, thereby limit the division of labor, and thereby reduce the nation’s well-being.

People specialize and trade out of self-interest. In one of his most commonly quoted passages, Smith wrote:

But man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. . . . It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.²⁵

The message here was not that you *should* seek only your own gain, but that you benefit from the fact that the butcher, brewer, and baker do seek *their* own gains, because that is what makes them serve you. Self-interested trade, not selfless benevolence, makes society go: “Nobody but a beggar chuses to depend chiefly upon the benevolence of his fellow-citizens.”²⁶

HOW THE DIVISION OF LABOR PROMOTES PROSPERITY

Smith considered labor the most important factor of production. (The book’s first sentence even seems to suggest that it is the *only* input). The potential for increasing output, he thought, depends primarily on increasing the productivity of labor through greater specialization:

The greatest improvement in the productive powers of labour, and the greater part of the skill, dexterity, and judgment with which it is anywhere directed,

²⁵ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, ed. R. H. Campbell, A. S. Skinner, and W. B. Todd (Indianapolis: Liberty Classics, 1981), pp. 26–7.

²⁶ *Ibid.*, p. 27.

or applied, seem to have been the effects of the division of labour... It is the great multiplication of the productions of all the different arts, in consequence of the division of labour, which occasions, in a well-governed society, that universal opulence which extends itself to the lowest ranks of the people.²⁷

Today an increase in output per worker-hour, holding the stock of capital equipment constant, is classified as technological improvement. Smith's emphasis on increased productivity due to greater specialization may seem to underplay the importance of capital accumulation, of having more tools and materials to work with. But Smith soon added: "The number of useful and productive labourers, it will hereafter appear, is every where in proportion to the quantity of capital stock which is employed in setting them to work, and to the particular way in which it is so employed." Capital accumulation thereby also plays an important role in improving labor productivity, even if this was explained in a "somewhat confused" way (referring to the number of productive workers rather than to the level of productivity per worker), to use the words of Edwin Cannan in his Introduction to the 1904 edition of *The Wealth of Nations*. What matters is that capital accumulation and the appropriate allocation of capital goods increase output per worker. Elsewhere Smith provided a straightforward example: "Two men and three horses will do more in a day with the plow than 20 men without it."²⁸

Smith's famous example of a tremendous increase in productivity due to greater division of labor was the operation of a pin-making factory. He had met the great French writer Voltaire during his tour of Europe, and admired his work, so it might be more than coincidence that Smith's choice of pin-making to represent useful industry echoed this passage in Voltaire's satire *Candide*, published in 1759:

"Ha!" cried Martin, "here are fourscore volumes of the memoirs of the Academy of Sciences; perhaps there may be something curious and valuable in this collection." "Yes," answered Pocouranté; "so there might if any one of these compilers of this rubbish had only invented the art of pin-making; but all these volumes are filled with mere chimerical systems, without one single article conducive to real utility."²⁹

Smith counted "about eighteen distinct operations" in producing a pin: drawing out the wire, straightening it, cutting it, sharpening the point,

²⁷ Ibid., pp. 13, 22.

²⁸ Adam Smith, *Lectures on Jurisprudence* [Report dated 1766], ed. R. L. Meek, D. D. Raphael, and L. G. Stein (Indianapolis: Liberty Classics, 1982), p. 492.

²⁹ Voltaire, *The Works of Voltaire: A Contemporary Version*, trans. William F. Fleming (New York: E. R. DuMont, 1901), vol. 1, *Candide*, ch. 25. Available online at <http://oll.libertyfund.org/title/350>.

grinding the other end to receive the pinhead, various steps involved in making and attaching the pinhead, whitening the pin, placing it in paper, and so on. With all the necessary materials and equipment at hand, an individual who sequentially performed all the steps in producing a pin could not, he guessed, make “twenty, perhaps not one pin in a day.” Smith claimed to have visited a ten-person pin factory that, by assigning each worker to perform only one or two tasks repeatedly, “could make among them upwards of forty-eight thousand pins in a day.” Output per worker was thus more than forty-eight hundred pins in a day. The 240-fold increase in output came “in consequence of a proper division and combination of their different operations.”³⁰

The pin-factory example emphasized the division of tasks within a single firm. But Smith also noted the increased productivity in pin-making due to the division of labor across the economy as a whole. He noted that an individual could “scarce make a pin in a year” if he tried to dig up iron ore and smelt his own iron, and so on, to produce the wire that the factory simply purchased, letting others specialize in producing wire.³¹ Every homemaker and every businessman knows that it is foolish to make something for one’s own use (say, a candle) that can be more cheaply bought. Smith made a straightforward case for free international trade by extending the logic of prudence in make-or-buy decisions to the level of the nation:

It is maxim of every prudent master of a family never to attempt to make at home what it will cost him more to make than to buy. The taylor does not attempt to make his own shoes, but buys them of the shoemaker. . . . What is prudence in the conduct of every private family can scarce be folly in that of a great kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry employed in a way in which we have some advantage.³²

With specialization and trade going hand in hand, the *gains from specialization* in production and the *gains from trade* in the produced goods are the same gains looked at from different angles. In a market society, “every man may purchase whatever part of the produce of other men’s talents he has occasion for.”³³ We will discuss in greater detail in [Chapter 14](#) Smith’s argument for free trade, and how later classical economists (James Mill, Robert Torrens, David Ricardo) developed Smith’s notion of “advantage” in production as the source of gains from specialization and trade.

³⁰ Smith, *Wealth of Nations*, p. 15.

³¹ *Ibid.*, p. 14 n. 2.

³² *Ibid.*, pp. 456–7.

³³ *Ibid.*, p. 30.

THE “INVISIBLE HAND” OF THE MARKET

Sounding a theme that Hayek would later elaborate, Smith noted that knowledge of profitable investment opportunities is decentralized. Public authorities in the capital city cannot know the most profitable investments out in the countryside as well as private investors on the scene:

What is the species of domestic industry which his capital can employ, and of which the produce is likely to be of the greatest value, every individual, it is evident, can, in his local situation, judge much better than any statesman or lawgiver can do for him.³⁴

But why should we think that what’s best for the individual investor is also best for society? Won’t millions of individuals create chaos by pursuing millions of independent self-seeking plans, uncoordinated by any central authority? No, Smith answered. The profit motive steers competing producers (the aforementioned butcher, brewer, and baker) to provide what their customers are most willing to buy. The pursuit of private interest through market activity thereby promotes the general interest. The investor who pursues the greatest (risk-adjusted) return on his investment likewise pursues the investment that produces the greatest value for society:

By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest, he frequently promotes that of the society more effectually than when he really intends to promote it.³⁵

What Smith meant by the “invisible hand” – the phrase appears in *The Wealth of Nations* only in this passage – has been much debated by intellectual historians. Some, stressing Smith’s religious views, think he meant to suggest that there *really is* an external guiding hand that we can’t see with our eyes, the providential hand of God. Economists, however, have generally understood the phrase as a metaphor for the ordering processes of a competitive market system. There need be no *actual* hand, because the investor is led by market signals and incentives to coordinate his behavior with other market participants *as if* he were led by an invisible guiding

³⁴ Ibid., p. 456.

³⁵ Ibid.

hand. (Paradoxically, the Association for Private Enterprise Education, a professional organization of largely Smithian economists, features in its logo a photograph of an *actual and visible* glass hand supporting a glass globe. But to be fair, a merely metaphorical hand, literally invisible to the eyes, wouldn't make much of a logo.) Market forces create an orderly and beneficial pattern of activities, akin to the pattern one would see if the activities were being arranged by a kindly supernatural intelligence aiming to facilitate people's aims.

Where Smith wrote of outcomes shaped by "an invisible hand," Hayek wrote of "spontaneous order." In his book *The Counter-Revolution of Science*, Hayek distinguished two sorts of spontaneous orders that economists seek to explain: *recurrent* orders like the establishment every day of a market-clearing price for bananas in the wholesale fruit market, and *cumulative* institutional orders like the emergence of monetary exchange out of barter. Like "invisible hand," the phrase "spontaneous order" is unfortunately also liable to multiple interpretations. *Spontaneous* here does not mean happening without human action, like spontaneous combustion, but rather emerging from many human actions without being deliberately directed by any single will. Hayek paraphrased Adam Ferguson, a Scottish contemporary of Smith's, in speaking of "the results of human action but not of human design," a phrase he used as the title of an article tracing the history of the concept.³⁶ This phrase is unfortunately less compact, and fails to suggest that the results are orderly or otherwise socially beneficial.

Smith clearly thought of the market system, freed from mercantilist constraints, as *self-ordering* rather than steered by a deity behind the scenes. And he clearly saw the results as socially beneficial. In *The Wealth of Nations* he contrasted a mercantilist regime to a free and thereby competitive market system as follows:

All systems either of preference or of restraint, therefore, being thus completely taken away, the obvious and simple system of natural liberty establishes itself of its own accord. Every man, as long as he does not violate the laws of justice, is left perfectly free to pursue his own interest his own way, and to bring both his industry and capital into competition with those of any other man, or order of men.³⁷

³⁶ Hayek, "The Results of Human Action but Not of Human Design," in *Studies in Philosophy, Politics, and Economics*, p. 96–105. Ferguson's full sentence is quoted later.

³⁷ Smith, *Wealth of Nations*, p. 687.

He spoke of the beneficial results of liberty for prosperity in an oft-quoted passage of a paper that he presented in 1755:

Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism but peace, easy taxes, and a tolerable administration of justice: all the rest being brought about by the natural course of things.³⁸

He embellished the point in *The Wealth of Nations* by specifying self-interest as the driving force of “the natural course of things,” needing no help from the sovereign:

The natural effort of every individual to better his own condition, when suffered to exert itself with freedom and security, is so powerful a principle, that it is alone, and without any assistance, not only capable of carrying on the society to wealth and prosperity, but of surmounting a hundred impertinent obstructions with which the folly of human laws too often incumbers its operations.³⁹

In Smith’s use of the phrase “natural liberty” we can see the influence of earlier classical liberal thinkers like John Locke and of the contemporary thinkers he had met in France like A. R. J. Turgot. We will discuss some of the intellectual influences on Smith later in this chapter.

THE ROLES OF GOVERNMENT

Threats to natural liberty, Smith warned, came from the politician who wanted to run things by command, who would “assume an authority ... which would nowhere be so dangerous as in the hands of a man who had folly and presumption enough to fancy himself fit to exercise it.”⁴⁰ Such a man failed to recognize that his imposed order would not facilitate but would conflict with the varied aims of individuals:

The man of system ... seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chess-board. He does not consider that the pieces upon the chess-board have no other principle of motion besides that which the hand impresses upon them; but that, in the great chess-board of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might chuse to impress upon it.⁴¹

³⁸ As quoted by Dugald Stewart, “Adam Smith, LL.D.,” p. 322.

³⁹ Smith, *Wealth of Nations*, p. 540.

⁴⁰ Ibid., p. 456.

⁴¹ Adam Smith, *The Theory of Moral Sentiments* [1752], ed. D. D. Raphael and A. L. Macfie (Indianapolis: Liberty Fund, 1984), pp. 233–4.

Smith was not, however, an anarchist assigning a zero role to government or even, as it has been said that he has a reputation for being, a *laissez-faire* absolutist.⁴² He endorsed those roles of government that he thought would facilitate the citizens' own various pursuits and thereby the wealth of the nation. Government should defend against foreign invasion. It should maintain civil order, that is, protect property rights by preventing robbery and fraud, and thus "afford to industry the only encouragement which it requires, some tolerable security that it shall enjoy the fruits of its own labour." Protecting persons and property, in Smith's view, also meant that the government should protect intellectual property (trademarks, patents, and copyrights) and prevent negative spillovers like communicable diseases and fires (for example by enforcing building codes that required firewalls). Thirdly and lastly, the government should finance "those public institutions and those public works, which, though they may be in the highest degree advantageous to a great society, are, however, of such a nature that the profit could never repay the expense to any individual or small number of individuals, and which it therefore cannot be expected that any individual or small number of individuals should erect or maintain." The general idea Smith enunciated here – that some projects bestow overall benefits in excess of their overall costs yet cannot be financed by user fees and thus cannot be provided in the usual way by private enterprise – anticipated the modern idea of "public goods," the development of which we will discuss in [Chapter 13](#).

SMITH ON MONEY AND BANKING

Smith took it for granted that coinage had originated from the practice of placing "a *public stamp*" (emphasis added) on pieces of metal to certify their weight and purity, and did not question government operation of the mints. But in issuing circulating paper money – banknotes redeemable for coin – he saw great advantage in relying on private enterprise as Scotland did in his day (and still does today). The British government had properly prohibited small-denomination notes (under £1 in Scotland) and notes giving the issuer the option of delaying redemption, he thought, because "beggary" or fly-by-night bankers could otherwise get their notes into circulation to the

⁴² Samuel Fleishacker, *On Adam Smith's Wealth of Nations: A Philosophical Companion* (Princeton, NJ: Princeton University Press, 2005), p. 204, writes of Smith's "posthumous reputation for 'laissez faire' absolutism." Economists have long been almost entirely disabused of this caricature thanks to Jacob Viner, "Adam Smith and Laissez Faire," *Journal of Political Economy* 35 (April 1927), pp. 198–232.

inconvenience of the public. (He likened these measures to requiring the fireproofing of common walls to prevent the spread of fires.) Given those measures, private note-issue “may, with safety to the public, be rendered in all other respects perfectly free.”

Free competition among banks of issue would have several benefits. First, the wider the decentralization of money-issue, the less the harm to the public from any one issuer’s failure:

By dividing the whole circulation into a greater number of parts, the failure of any one company, an accident which, in the course of things, must sometimes happen, becomes of less consequence to the publick.⁴³

Second, the stronger the competition in banking, the more favorable the terms that the public receives on bank accounts:

This free competition, too, obliges all bankers to be more liberal in their dealings with their customers, lest their rivals should carry them away. In general, if any branch of trade, or any division of labour, be advantageous to the public, the freer and more general the competition, it will always be the more so.⁴⁴

Third, competing banks would spread the use of paper banknotes in place of coin, enabling a larger volume of bank lending, thereby enabling the economy to be more productive. The funds gained by issuing banknotes, just like the funds gained by attracting deposits, enabled banks to finance business investments, whereas gold and silver coin held by public was so much “dead stock.” Unneeded gold and silver could be exported in exchange for productive imported equipment. The substitution of banknotes for precious coin thus allowed the nation to “convert a great part of [its] dead stock into active and productive stock; into stock which produces something to the country.” Smith believed that during his lifetime this substitution process – the spread of banknotes – had visibly accelerated Scotland’s growth.⁴⁵

NOT A SHILL FOR BUSINESS INTERESTS

Smith defended market competition as the best method for improving the well-being of the average citizen. As his critique of mercantilism made

⁴³ Smith, *Wealth of Nations*, p. 329.

⁴⁴ Ibid.

⁴⁵ Modern historians and economists who have studied the issue have shared Smith’s judgment. See Rondo Cameron, “Scotland,” in Cameron et al., *Banking in the Early Stage of Industrialization* (New York: Oxford University Press, 1967); also William Lastrapes and George Selgin, “Banknotes and Economic Growth,” University of Georgia working paper (2008).

clear, he was not a defender of business interests. (The economist Thomas Sowell, when he taught the history of economic thought, used to highlight this fact by offering an “A” grade to any student who could find a single passage in *The Wealth of Nations* praising businessmen.) Smith wrote that businessmen are “an order of men, whose interest is never exactly the same with that of the public, who generally have an interest to deceive and even to oppress the publick, and who accordingly have, upon many occasions, both deceived and oppressed it.” He was accordingly suspicious of them: “People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the publick, or in some contrivance to raise prices.” The remedy was not to abridge their liberty to meet, but to reject their pleas for special privileges – like tariffs, quotas, restrictions against new entry into a trade, and grants of monopoly – that would shelter them from competition. Granting such privileges “to narrow the competition . . . can only serve to enable the dealers, by raising their profits above what they naturally would be, to levy, for their own benefit, an absurd tax upon the rest of their fellow citizens.”⁴⁶

INFLUENCES ON SMITH: FRANCIS HUTCHESON AND BERNARD MANDEVILLE

Edwin Cannan, in his Introduction to the 1904 edition of *The Wealth of Nations*, traced some of Smith’s liberal views and interest in economics to Francis Hutcheson (1694–1746). Hutcheson instructed Smith in moral philosophy, which in those days included economics, at the University of Glasgow. Hutcheson warmly defended civil and religious liberty, though not so much economic liberty. He was an early utilitarian, writing in 1725 that “that Action is best, which procures the greatest Happiness for the greatest numbers; and that, worst, which, in like manner, occasions Misery.”⁴⁷ Smith’s goal of improving the lot of the average citizen was not much different.

Hutcheson’s *System of Moral Philosophy* (1755) explained the productive advantages of specialization and trade in domestic industry. But it inconsistently retained some mercantilist views, advocating protective national tariffs that would restrict the international division of labor. Cannan found that Hutcheson lacked Smith’s emphasis on the self-ordering operation of competitive markets and the driving force of self-interest: “But while we

⁴⁶ Smith, *Wealth of Nations*, pp. 267, 145.

⁴⁷ Frances Hutcheson, *An Inquiry into the Original of Our Ideas of Beauty and Virtue in Two Treatises* [1729], ed. Wolfgang Leidhold (Indianapolis: Liberty Fund, 2004), available online at oll.libertyfund.org/title/858/65996/1608170.

may well believe that Adam Smith was influenced in the general direction of liberalism by Hutcheson, there seems no reason for attributing to Hutcheson's influence the belief in the economic beneficence of self-interest which permeates *The Wealth of Nations*.⁴⁸

Cannan considered it "probable – we cannot safely say more" that Smith was nudged toward respect for self-interest by reading the controversial satire *The Fable of the Bees: or, Private Vices, Publick Benefits* (1714 and expanded later editions, including Edinburgh editions of 1755 and 1772) by the Dutch-English writer Bernard Mandeville (1670–1733).⁴⁹ In *The Theory of Moral Sentiments*, Smith criticized Hutcheson by name for underplaying the importance and beneficial operation of self-interest. In a later chapter he considered "the lively and humorous, though coarse and rustic eloquence of Dr. Mandeville," whose work argued that socially beneficial results arise spontaneously from private "vices" such as the vain and selfish pursuit of pleasure. Smith found Mandeville's position highly exaggerated (noting that Mandeville called "vanity" or "vice" the pursuit of any consumption beyond bare subsistence), but granted that it "in some respects bordered upon the truth."⁵⁰ Smith rejected outright Mandeville's praise for spending as such, arguing to the contrary that *saving* finances capital formation and thereby enhances prosperity.

Mandeville's work began as a twenty-some-pages-long poem about a beehive, titled "The Grumbling Hive: or, Knaves turn'd Honest," first published in 1705. He added prose commentaries, explanatory dialogues, and the better-known title to later editions (1714 and after). The beehive was overtly a metaphor for human society. When the bees pursued vanity, the hive prospered; after they renounced it, production flagged, and the hive fell back into poverty. The poem's rhyming couplets about the prosperous phase of the hive included:

Millions endeavoring to supply
Each other's lust and vanity;

... Luxury
Employ'd a Million of the Poor

⁴⁸ Edwin Cannan, "Introduction," in Adam Smith, *The Wealth of Nations*, 5th ed. (London: Methuen, 1904), para. 80. Available online at <http://www.econlib.org/library/Smith/smWN0.html#Preface>.

⁴⁹ Bernard Mandeville, *The Fable of the Bees or Private Vices, Publick Benefits*, 2 vols. With a Commentary Critical, Historical, and Explanatory by F. B. Kaye (Indianapolis: Liberty Fund, 1988).

⁵⁰ *Theory of Moral Sentiments*, VII.2.98, VII.2.106

And odious Pride a Million more:
 Envy it self, and Vanity,
 Were Ministers of Industry;

... Thus every Part was full of Vice,
 Yet the whole mass a paradise; ...
 The worst of all the Multitude
 Did something for the Common Good.⁵¹

Smith could have taken from Mandeville's fable the central point that a prosperous and well ordered economy did not require *taming* men's selfish passions, but rather *channeling* them appropriately.

Several other later Smithian ideas are also suggested. In his prose commentary Mandeville emphasized the importance of the division of labor, marveling at "what a number of people, how many different trades, and what a variety of skills and tools must be employed to have the most ordinary Yorkshire cloth."⁵² Against the mercantilists he argued that imports do not stifle domestic industry, because the desire to trade for them stimulates production: "Buying is bartering, and no nation can buy goods of others that has none of her own to purchase with."⁵³

In these ways Mandeville was an important precursor to the Smith's spontaneous-order thinking, provocatively making the point that beneficial overall results may emerge unintentionally from individual self-seeking. F. B. Kaye has commented that "Mandeville's exposition of the individualistic position was incomparably the most brilliant, the most complete, the most provocative, and the best known until Adam Smith made the *laissez-faire* position classic in *The Wealth of Nations*."⁵⁴ It was left to Smith to overhaul Mandeville's sketchy and confused theory as to how useful results actually arise in human society. Smith and later economists also had to correct Mandeville's outright errors, including his bias against thrift and his fallacious notion that even thievery is socially beneficial because it creates work for locksmiths.

DAVID HUME AND ADAM FERGUSON

Besides Hutcheson, two other Scotsman contributed important pieces of Smith's economic world-view. Smith's personal friend David Hume

⁵¹ Ibid., pp. 18, 25, 24.

⁵² Ibid., p. 169.

⁵³ Ibid., p. 111.

⁵⁴ Ibid., p. cxl.

(1711–76), the well known moral philosopher, hinted at spontaneous-order thinking in his political and historical writings. Hume argued that social traditions and evolved institutions, like private property for coping with the scarcity of resources, embody practical wisdom. He saw trade as the source of economic development, and economic development as the source of civilization, peace, and happiness.

Hume effectively refuted mercantilist monetary theory in the essay “Of the Balance of Trade” in his *Political Discourses* (1752). There he explained how the quantity of coin in a country regulates itself through a process that has become known as the Humean price-specie-flow mechanism. (“Specie” means gold or silver coin.) Smith cited Hume and summarized his theory in his *Lectures on Jurisprudence* and relied upon it to some extent in *The Wealth of Nations*. Chapter 11 discusses Hume’s theory and its implications.

Adam Ferguson (1723–1816), in his *Essay on the History of Civil Society* (1767), drew from Smith’s earlier *Theory of Moral Sentiments* and influenced his later *The Wealth of Nations*. In the *Essay* we find Ferguson’s statement of the spontaneous-order idea, later quoted and paraphrased by Hayek: “Every step and every movement of the multitude, even in what are termed enlightened ages, are made with equal blindness to the future; and nations stumble upon establishments, which are indeed the result of human action, but not the execution of any human design.”⁵⁵ Ferguson also offered an especially clear statement of the advantages of the division of labor within the firm: “Every undertaker in manufacture finds, that the more he can subdivide the tasks of his workmen, and the more hands he can employ on separate articles, the more are his expences diminished, and his profits increased.”⁵⁶

THE PHYSIOCRATS

In his travels through Europe in 1763–4, Smith came in contact with a group of French economists known as the Physiocrats, the name indicating that they favored “rule by Nature.” The acknowledged leader of the group at the time of Smith’s tour was François Quesnay (1694–1774), author of the *Tableau Économique* (1758), which presented a circular-flow model of the economy. The Physiocrats were critics of mercantilism, which dominated French economic policy under Louis XIV and his finance minister Jean Baptiste Colbert, and proponent of laissez-faire. An important precursor

⁵⁵ Adam Ferguson, *An Essay on the History of Civil Society*, ed. Fania Oz-Salzburger (Cambridge: Cambridge University Press, 2001), p. 119.

⁵⁶ *Ibid.*, p. 172.

of their ideas was the free-trade advocate Vincent de Gournay (1712–59). The intellectual historian David Hart writes that “It was Gournay who is reputed to have coined the expression ‘laissez faire, laissez passer’ when asked what government economic policy should be.”⁵⁷ The phrase means “let do, let pass.” More specifically, a policy of laissez-faire in that era meant the removal of trade barriers, state-sponsored monopolies and privileges, and guild restrictions.

As Smith later would, the Physiocrats taught that wealth consists in producing goods, not (as the mercantilists thought) in accumulating gold and silver. But Physiocracy included the peculiar doctrine that only agriculture yields a net product (has outputs more valuable than its inputs), and thus only agriculture adds to wealth. The Physiocrats favored laissez-faire to unleash the productive power of agriculture. Manufacturing, they believed, consumes as much input value as it yields in output, so it adds no wealth and should not be artificially encouraged. Government should be minimized because the State is parasitical, having a negative net product, and lives off the productive sector.

Smith considered some elements of Physiocracy fanciful, and drollingly commented that it “never has done, and probably never will do any harm in any part of the world.” But Smith seconded Quesnay’s views that the relevant measure of wealth of the nation is its annual produce, that some labor is unproductive and a drain on the productive sector, and that a major task of economics is to analyze how the annual produce is distributed among classes.

Smith was especially well acquainted with the Physiocracy-influenced economist, later a government policy reformer, Anne Robert Jacques Turgot (1727–81), Smith’s junior by four years. In his “Éloge de Gournay” (1759) – a tribute to the late free-trader Gournay who had been his mentor – Turgot criticized mercantilist trade restrictions as a system of privilege. He offered laissez-faire as a policy maxim: “The government should always protect the natural liberty of the buyer to buy, and the seller to sell.” In his *Reflections on the Formation and Distribution of Wealth* (1766), Turgot considerably modified and improved the Physiocratic system. He recognized that industry, not only agriculture, could add value, and that a key to increasing the productivity of industry was the accumulation of capital by means of saved annual produce. Turgot’s follower the Marquis de Condorcet wrote in 1787 that “This Essay may even be considered as the germ of the treatise on *The*

⁵⁷ David Hart, “Turgot: Annotated Bibliography,” available online at <http://www.econlib.org/library/Essays/TurgotBio.html>, accessed 26 May 2008.

Wealth of Nations written by the celebrated Smith; a work, unfortunately for the happiness of mankind, hitherto too little known in Europe.”⁵⁸

THE PROBLEM OF SOCIAL COORDINATION

Adam Smith’s conception of spontaneous social coordination suggested a research program investigating theoretically and historically how social coordination comes about in a large anonymous economy. Early in the nineteenth century, David Ricardo and others made an important contribution by developing the theory of comparative advantage (see [Chapter 14](#)), a key to understanding why humans trade and form a society in the first place rather than each living alone without interaction. The nineteenth-century economist who did most to extend Smith’s conception of the problem toward Hayek’s was Carl Menger, the founder of the Austrian school who published his two most important works in 1871 and 1883. Smith, Menger, and Hayek each contributed to the perspective that prosperity depends on individuals being able to coordinate their own economic activities with those of strangers. As Smith framed the problem, “In civilized society [an individual] stands at all times in need of the co-operation and assistance of great multitudes, while his whole life is scarce sufficient to gain the friendship of a few persons.”⁵⁹

Menger saw institutional arrangements like money and markets as the frameworks that enable human coordination and cooperation, and so in his book *Investigations into Method* (1883) reframed the research question as one of explaining how useful institutions arise: “How can it be that institutions which serve the common welfare and are extremely significant for its development come into being without a common will directed toward establishing them?”⁶⁰ As economist Steven Horwitz has noted, Menger’s inquiry into beneficial patterns that arise without a common will was essentially an inquiry into the workings of Smith’s invisible hand.⁶¹ Hayek in turn cited Menger’s *Investigations into Method* as an inspiration for his own ideas, expressed during and after the socialist calculation debate, about how an economy of decentralized individuals operates coherently without any one decision-maker in charge.

⁵⁸ Marquis of Condorcet, *The Life of M. Turgot ... Translated from the French* (London: Printed for J. Johnson, 1787), p. 74.

⁵⁹ Smith, *Wealth of Nations*, p. 26.

⁶⁰ Carl Menger, *Investigations into the Method of the Social Sciences with Special Reference to Economics*, trans. Francis J. Nock, ed. Lawrence H. White (New York: New York University Press, 1985), p. 146.

⁶¹ Steven Horwitz, “From Smith to Menger to Hayek: Liberalism in the Spontaneous-Order Tradition,” *Independent Review* 6 (Summer 2001), p. 85.

Menger criticized Smith's emphasis on the division of labor, arguing that this was not the most important source of economic progress. An aboriginal hunter-gatherer tribe can divide its labor, he pointed out, and still not get rich. The greatest increases in prosperity come from acquiring the capital and especially from developing the know-how necessary to institute complex techniques of multistage production:

The quantities of consumption goods at human disposal are limited only by the extent of human knowledge of the causal connections between things, and by the extent of human control over these things.... Nothing is more certain than that the degree of economic progress of mankind will still, in future epochs, be commensurate with the degree of progress of human knowledge.⁶²

Hayek would later take up Menger's emphasis on capitalistic production, though he wrote little about technological progress.

CARL MENDER

Carl Menger (1840–1921) was born into the Austro-Hungarian Empire. He studied economics at the University of Prague and at the University of Vienna between 1859 and 1863, worked as an economic journalist in Vienna, then returned to school to earn a law degree at the University of Krakow in 1867. (Prague was a major city within the Empire; Krakow was on its northern edge, near Menger's birthplace; Vienna was its capital.) He again worked as an economic journalist while writing his pathbreaking *Grundsätze der Volkswirtschaftslehre* [*Principles of Economics*], published in 1871.⁶³ The book enabled Menger to lecture at the University of Vienna from 1873 to 1876. He then served for two years as tutor to the Crown Prince Rudolph, touring Europe with him much as Adam Smith had toured with the young Duke of Buccleuch. Menger's lectures, as recorded in the prince's notebooks and corrected by Menger, were discovered, translated, and published in English in 1994.⁶⁴ They reveal that, far from being a

⁶² Carl Menger, *Principles of Economics* [1871], trans. James Dingwall and Bert F. Hoselitz (New York: New York University Press, 1981), p. 74.

⁶³ (Vienna: Wilhelm Braümüller). English translation: Carl Menger, *Principles of Economics*, trans. James Dingwall and Bert F. Hoselitz (New York: New York University Press, 1981).

⁶⁴ *Carl Menger's Lectures to Crown Prince Rudolph*, ed. Erich W. Streissler and Monika Streissler (Brookfield, VT: Edward Elgar, 1994). See also Erich W. Streissler, "Carl Menger on Economic Policy: The Lectures to Crown Prince Rudolph," in Bruce J. Caldwell, ed., *Carl Menger and His Legacy in Economics* (Durham, NC: Duke University Press, 1990), pp. 107–30.

policy-detached theorist, Menger's economic policy teachings were almost pure Adam Smith.

Menger returned to the University of Vienna to take a professorial chair in 1879. He published *Investigations into the Method of the Social Sciences with Special Reference to Economics* in 1883, and the follow-up monograph *The Errors of Historicism in German Economics*, counterattacking German critics of his previous work, in the following year. He retired in 1903.

MENGER'S THEORY OF PRICE FORMATION

Menger offered invisible-hand theories both of recurrent orders (most notably the formation of market prices from subjective preferences) and of cumulative orders (most notably the emergence of money from barter). In his theory of price formation, prices emerge as a by-product of trade. Trade presupposes reciprocal wants: in Menger's example, Person A would rather have a horse (initially owned by B) than some amount of grain (initially owned by A). B has the reverse preference. Trading a horse for the grain makes both parties better off in their own eyes. Another mutually beneficial horse-for-grain trade is possible if A prefers a second horse to some amount of his remaining grain and B again ranks the two goods in reverse order. And so on. The realized price on the last trade, x bushels of grain per horse, is such that no more trades are preferred by both parties at that price. The two-person market has cleared. The trading process generalizes to a multiseller, multibuyer market. Nobody in the market aims to find the market-clearing price, but it emerges from a two-sided bidding process (horse-sellers bidding for grain, grain-sellers bidding for horses) driven by the efforts of traders on each side to find the best price available for themselves.

THE EMERGENCE OF MONEY

Money, in the standard definition, is any good serving as a commonly accepted medium of exchange. A *medium of exchange* is a good that an individual accepts in one exchange in order to trade away in a later exchange. Menger offered a cumulative spontaneous-order theory to explain how the institutional pattern of monetary exchange (by contrast to simple barter) had arisen from self-seeking actions by individuals, with the emergent pattern not part of anyone's intention. The alternative approach, supposing that money was deliberately designed (for example, invented by a wise king), requires heroic assumptions about a designer's genius at imagining a new institutional order that had never been seen. Just as no single

individual invented the English language, it is beyond belief that any individual invented the social practice of using money.

Adam Smith in *The Wealth of Nations* (Book I, Chapter IV, “Of the Origins and Use of Money”) grasped that money was a spontaneous outgrowth of trade. Individuals had begun carrying widely accepted goods to buy with, in order to overcome the difficulties met in trying to directly barter with one’s own produce when only a few sellers of other goods wanted it. But Smith never filled in the steps by which a commonly accepted medium of exchange had emerged.

The first task for Menger’s theory was to explain why, as a trader, you would want to switch from direct exchange (swapping your services or home-made products directly for desired consumption goods) to indirect exchange (the two-step trading strategy of first selling your services or products for a medium of exchange, and then using that medium to buy the consumption good). The problem with direct exchange is the difficulty of finding someone who *both* offers the good that you want *and* wants the good that you offer. Suppose (this is not Menger’s example) you come to market with asparagus and want to go home with broccoli. You find someone offering broccoli, but discover that she doesn’t want asparagus. Indirect exchange offers a way around this frustration. If you ask what she does want, you may find that one of the answers is cabbage. If you can trade asparagus for cabbage, you can then trade cabbage for broccoli. In this two-step strategy of *indirect exchange*, cabbage serves as your medium of exchange.

In the more general case, in which you come to a market not knowing exactly what will be accepted in payment by sellers of the goods you seek, indirect exchange can accomplish your desired trades with less time and trouble when the medium of exchange you acquire has greater “salability” or “marketability” (Menger’s term in German was *Absatzfähigkeit*) than your initial good. Greater salability is a combination of a good’s being more widely consumed or popular, so that more sellers are willing to accept it and thus trades are easier to find, and its having lower costs of holding and trading (less spoilage, easier to transport, more readily divisible for making change, easier to assess quality). Menger summarized the result: “Men have been led, with increasing knowledge of their individual interests, each by his own economic interests, without convention, without legal compulsion, nay even without any regard to the common interest, to exchange goods destined for exchange (their ‘wares’) for other goods equally destined for exchange, but more salable.”⁶⁵

⁶⁵ [C]arl Menger, “On the Origin of Money,” trans. Caroline A Foley, *Economic Journal* 2 (June 1892), p. 248.

The second task for Menger's theory was to explain why a set of trading individuals, initially using a wide variety of goods as exchange media, converges on a *common* medium of exchange. The key is what today we call a network effect. Once they have discovered indirect exchange, traders find that it pays to learn which goods the largest numbers of other traders are accepting, so that they themselves can successfully accept and carry inventories of more rather than less marketable items for use as media of exchange. The greater the number of traders in a market who accept salt, for example, the more useful salt is as a medium of exchange for anyone who contemplates trading in that market. Popularity as a medium of exchange is therefore self-reinforcing: if I decide to accept salt to use it as a medium of exchange, I increase by one the number of traders who accept it, and thereby incrementally increase salt's usefulness as a medium of exchange for others. Popularity breeds more popularity, until the market converges on a commonly accepted medium of exchange. Initially salt may have been only slightly more marketable than other goods, but after a convergence on salt its marketability is *much* greater than that of any other good.

An important implication of Menger's theory, one that he himself stressed, was that money emerges spontaneously. No collective decision was necessary:

The origin of money (as distinct from coin, which is only one variety of money) is, as we have seen, entirely natural and thus displays legislative influence only in the rarest instances. Money is not an invention of the state. It is not the product of a legislative act. Even the sanction of political authority is not necessary for its existence. Certain commodities came to be money quite naturally, as the result of economic relationships that were independent of the power of the state.⁶⁶

A potential danger of self-reinforcing popularity, often mentioned in the modern literature on other network goods, is that the market may become "locked in" to a particular standard, and find it difficult to switch spontaneously to a technically *better* standard. In speaking of marketability, Menger referred not only to a good's popularity but also to other characteristics (portability, divisibility, durability, etc.) that lowered the costs of using it as a hand-to-hand medium of exchange. A trader would consider those characteristics in choosing among potential media of exchange, both for his own sake and because goods with lower transactions costs would be preferred in payment by future trading partners. A commodity that is technically better as a medium of exchange (one with lower costs of using) could

⁶⁶ Ibid., pp. 261–2.

thus displace a worse one. Menger offered the historical example of copper displacing oxen as money when the urbanization of ancient Greece made lesser bulk, easier quality-assessment by urbanites, and the ability to make change for small transactions more important than the popularity of the good among farmers or its ability to walk itself from one rural market to another.

POLICY IMPLICATIONS OF SPONTANEOUS ORDER THEORY

Spontaneous-order economic theories, as developed by Smith, Menger, Hayek, and their followers, teach that mutually beneficial trades in decentralized markets, and the institutional patterns that grow from them, help to satisfy people's aims. The "anarchy of the marketplace" does not result in chaos, but yields coherent and beneficial order. The invisible hand does work to promote the wealth of nations. On this lesson is founded the practical case for dispersed private property and free competition that members of the Mont Pelerin Society and other market-oriented economists would continue to develop. As Steven Horwitz has summarized the case: "In the Scottish tradition, the arguments for free markets, freedom of expression and association, and international peace are consequentialist: allowing spontaneous-ordering processes to do their job is desirable because such processes *work*; they make for a more prosperous, happier world than do the alternatives."⁶⁷

Consequentialist arguments for free markets are not inconsistent with natural-rights arguments, which Smith also made. He wrote in *The Wealth of Nations*:

The patrimony of the poor man lies in the strength and dexterity of his hands; and to hinder him from employing this strength and dexterity in what manner he thinks proper without injury to his neighbor, is a plain violation of this most sacred property.⁶⁸

And:

To prohibit a great people ... from making all that they can of every part of their own produce, or from employing their stock and industry in the way that they judge most advantageous to themselves, is a manifest violation of the most sacred rights of mankind.⁶⁹

⁶⁷ Horwitz, "From Smith to Menger to Hayek," p. 92.

⁶⁸ Smith, *Wealth of Nations*, p. 138.

⁶⁹ *Ibid.*, p. 582.

The free-market or classical liberal position supported by spontaneous-order theory is sometimes labeled “conservative.” But this label is a misapplied, if *conservative* means “defending the status quo.” Adam Smith was a leading *critic* of the status quo policy system in his day, mercantilism. Hayek tried to head off misunderstanding of his classical liberal idealism by adding a postscript entitled “Why I am Not a Conservative” to his statement of political philosophy, *The Constitution of Liberty* (1960). More recently the MPS member and Nobel laureate economist James M. Buchanan has published a book entitled *Why I, Too, Am Not a Conservative* (2005).

The effort of spontaneous-order theorists to *understand* economic and historical processes does not mean that they must *accept* whatever has emerged (the status quo). First, the starting point of the ordering process may be objectionable from a normative perspective. Recognizing that prices emerge to clear a slave market, for example, does not make one a defender of slavery. Second, the process itself may be noninnocent. It may involve violations of Smithian “natural liberty,” the moral side-constraints defined by respect for the individual and his justly owned property. This is particularly true of political processes. For Hayek the “road to serfdom” is a noninnocent political process leading to an outcome that is clearly undesirable even while being the unplanned “result of human action but not of human design.” Finally, Hayek recognized the possibility that social evolution may lead down a “blind alley” to an unfortunate institutional outcome, identified by contrast to a feasible alternative arrangement, that cannot be corrected without deliberate and concerted (rather than spontaneous and piecemeal) action, although not necessarily through government.

The Postwar German “Wonder Economy” and Ordoliberalism

In June 1948, a telephone rang in the office of Ludwig Erhard, the German economist who was director of the Economic Administration in the UK-U.S. occupied zone of Germany. At the other end of the line was the American military commander, General Lucius Clay. On Sunday, June 20, Erhard was scheduled to give a radio address detailing a planned currency reform to replace the feeble old Reichsmark with the new Deutsche Mark. Clay’s office had learned that Erhard was also planning, without official approval from the Allied military command, to use the occasion to issue a sweeping order abolishing many of the price controls and rationing directives then in effect. When Erhard came on the line, General Clay said to him, “Professor Erhard, my advisors tell me that you are making a big mistake.” Erhard replied, “So my advisors also tell me.”¹

The decontrol went ahead nonetheless, and Germany’s remarkable economic recovery began.

OCCUPIED GERMANY, 1945–8

The Second World War left Germany’s cities, factories, and railroads in ruins, and its surviving citizens in extreme privation. Food, fuel, water, and housing were all in extremely short supply. In June 1945 the Four Powers

¹ This is the story Erhard told to F. A. Hayek, as recounted by Hayek, “The Rediscovery of Freedom: Personal Recollections,” in *The Fortunes of Liberalism*, ed. Peter G. Klein, vol. 4 of *The Collected Works of F. A. Hayek* (Chicago: University of Chicago Press, 1992), pp. 197–8. According to Erhard’s biographer, Erhard was called into General Clay’s office on 19 June to defend his plan to act without proper authorization. Some of Clay’s advisers were indeed critical of decontrol, but Clay himself was already sympathetic. Alfred C. Mierzejewski, *Ludwig Erhard: A Biography* (Chapel Hill: University of North Carolina Press, 2004), p. 69.

(the United States, the United Kingdom, France, and USSR) took control of the devastated country, dividing Germany into four occupation zones (the UK and U.S. zones later merged).

Occupation policy makers unfortunately perpetuated the shortages of goods – keeping legal retailers' shelves empty – by keeping in place the price controls that the Nazi government had imposed since 1936. The Allied authorities in the western zones replaced the Third Reich in rationing consumer goods and directing the allocation of productive resources by decrees and ordinances. People who found the official food rations of only 1000–1500 calories per day inadequate to feed themselves and their families had to barter their salvaged possessions for food on the black market. Roberto Rossellini's drama *Germany Year Zero* (1947), filmed on location among the rubble of immediate postwar Berlin, starkly depicts the everyday challenges posed by the severe shortages.

Germany's new Social Democratic Party supported the policy of continued controls and rationing. Erhard had become an opponent of the controls. He began to describe the consumers' and businessmen's battle against the bureaucratic allocation regime as *Der Papier Krieg* – the paper war.

ERHARD'S SHOCK THERAPY

The controls and shortages ended dramatically with Erhard's decontrol order. In the coming weeks Erhard removed most of the remaining price controls, allocation decrees, and rationing directives in the U.S.-UK Bizone. Wages were decontrolled in November. Erhard later wrote: "I was helped by General Clay, probably the strongest personality in the High Commission, who stood behind me, endorsing my orders."²

Not all American officials endorsed Erhard's approach. John Kenneth Galbraith was at that time an official of the U.S. State Department overseeing economic policy for occupied Germany and Japan, nearly fresh from his stint (1941–3) as a U.S. wartime price-control czar, and soon to publish *A Theory of Price Control* (1952). In a 1948 essay Galbraith completely dismissed the idea of reviving the German economy through decontrol:

During the past two years it has been asserted with increasing frequency and vehemence that if, somehow, the German economy could be freed from materials and manpower regulations, price controls and other bureaucratic paraphernalia the recovery would be expedited.... Yet there never has been

² Ludwig Erhard, *Prosperity through Competition*, trans. Edith Temple Roberts and John B. Wood (London: Thames and Hudson, 1958), pp. 14–15.

the slightest possibility of getting German recovery by this wholesale repeal, and it is quite possible that its reiteration has delayed German recovery. The question is not whether there must be planning – the assignment of priorities for reconstruction and rehabilitation, the allocation of materials and manpower, the supplying of incentive goods and all the rest – but whether that planning has been forthright and effective.³

Galbraith was mistaken. With Erhard’s sweeping decontrol measures, the shortages ended, and black markets disappeared. Shops once again had goods to sell, as General Clay noted in a letter to a colleague:

Almost overnight hoarded goods appeared on the shelves. . . . Likewise hoarded goods in manufacturing plants began to move to the stores. Even fruits and vegetables from the farm once more went on sale in the marketplace.⁴

Buying and selling with Deutsche Marks replaced barter. Factories began belching smoke again, and delivery trucks crowded the streets. The noise of construction crews clattered throughout the cities.⁵ The remarkable success of the reforms made them irreversible. A few months later the French zone followed suit. The Allied authorities went on to lower marginal tax rates dramatically.

Between June and December of 1948, industrial production in the three western zones increased by 50 percent. In May 1949 the three zones were merged to form the Federal Republic of Germany, commonly called West Germany, while East Germany remained under Soviet domination as the German Democratic Republic. By 1958, West Germany’s per capita output had risen threefold. The country outgrew France and the United Kingdom despite receiving much less Marshall Plan aid. It left East Germany in the dust. This was the era of the *Wirtschaftswunder* or “wonder economy.”

LUDWIG ERHARD

Ludwig Erhard (1897–1977) first began to pick up free-market ideas from his father, a small businessman, and then from an economics instructor at

³ John Kenneth Galbraith, “The German Economy,” in S. E. Harris, ed., *Foreign Economic Policy for the United States* (Cambridge, MA: Harvard University Press, 1948), pp. 94ff., as quoted by Hans Willgerodt, “Planning in West Germany: The Social Market Economy,” in A. Lawrence Chickering, ed., *The Politics of Planning: A Review and Critique of Centralized Economic Planning* (San Francisco: Institute for Contemporary Studies, 1976), p. 64.

⁴ Quoted by John O. Haley, *Antitrust in German and Japan: The First Fifty Years, 1947–1998* (Seattle: University of Washington Press, 2001), p. 190 n. 13.

⁵ Here I paraphrase an account by Jacques Rueff and André Piëtter, quoted by Erhard, *Prosperity through Competition*, p. 13.

the business college in Nuremburg where he took an undergraduate degree in 1922. Erhard went on to receive a doctorate in economics in 1925 from the University of Frankfurt, where he studied under the eclectic sociologist and economist Franz Oppenheimer, best known for his 1907 book *The State*.

Erhard refused to join the Nazi Party or its affiliated academic organization, both particularly strong in Nuremburg, which blocked his path toward an academic career. Instead he went to work for a business research institute in Nuremburg and soon began editing its publications. He became friendly with the classical liberal economist-sociologist Alexander Rüstow and read clandestine copies of the works of the free-market economists Wilhelm Röpke and Walter Eucken. Erhard quit the institute in 1942, amid an ideological dispute with its procartelization and Nazi-accommodating director, and formed his own research institute consisting of himself and a secretary.

In 1944 Erhard wrote a study for his institute's backers on how Germany could reform its economy after it lost the war, in particular how it could deal with the excess money and debt that would be left behind by the Third Reich. His think-piece, "Kriegsfinanzierung und Schuldenkonsolidierung" ["War Finance and Debt Consolidation"] proposed monetary contraction and a scaling down of nominal debts, but did not envision the abolition of price controls. Hitler had prohibited any such postwar planning. Erhard feared he would be arrested – fortunately he was not – after his friend and correspondent Carl Goerdeler, a politician who had written a memo favorably citing Erhard's study, was jailed by the Gestapo for his role in a failed plot to assassinate the Führer.⁶

In April 1945 Erhard volunteered his services to the American occupation authorities, who hired him to work on restoring the economy of his home city of Fürth in northern Bavaria. In October he was promoted to the post of economics minister for the state of Bavaria, in which role he helped to prevent the Americans from completely dismantling the Allach and Milbertshofen factories of the privately owned Bavarian Motor Works (BMW).⁷ Later in the same year he was named to chair a currency reform

⁶ Alfred C. Mierzejewski, *Ludwig Erhard: A Biography* (Chapel Hill: University of North Carolina Press, 2004), pp. 1–22. Goerdeler was tortured, given a show trial, and hanged. His role in the assassination plot is depicted in the film *Valkyrie* (2008).

⁷ *Ibid.*, pp. 50–2. BMW's factories produced aircraft engines and motorcycles for the German military during the war. The Allach factory in the suburbs of Munich, which used forced labor from the Dachau concentration camp, was heavily damaged by aerial bombing. The U.S. Army leased the facility from BMW and used it for vehicle repair until

commission. In April 1948 Erhard acquired his position as director of the Economic Administration of the UK-U.S. Bizone, whence he issued his June decontrol decree. The somewhat surprising appointment of a free-market economist to the directorship was the fortuitous result of horse-trading among the contending political parties in the Bizone. Erhard had the backing of a small classical-liberal party (the Free Democratic Party), whose votes the larger center-right Christian Democratic Union needed to form a majority coalition without the Social Democratic and Communist parties.⁸

Erhard became the Minister of Economic Affairs of the new West German government, serving under Chancellor Konrad Adenauer of the CDU, from 1949 to 1963. Erhard was then elected to succeed Adenauer, serving as Chancellor for three years. His electoral success was an endorsement of the policies that had unleashed the *Wirtschaftswunder*.

ORDOLIBERALISM

Ludwig Erhard was a political entrepreneur who drew his economic policy ideas from a specifically German variety of classical liberalism, a school of thought that came to be known as "Ordoliberalism" after the annual academic journal *Ordo* (the title is Latin for "order"). The intellectual entrepreneurs were the economics professor Walter Eucken and the law professors Franz Böhm and Hans Grossmann-Doerth.⁹ In 1936 the three launched a publication series under the label *Ordnung der Wirtschaft* [Order of the

1955. The less-damaged nearby Milbertshofen factory was allowed to make pots and pans immediately after the war. Motorcycle and automobile production was allowed to resume in 1948. See David Kiley, *Driven: Inside BMW, the Most Admired Car Company in the World* (Hoboken, NJ: Wiley, 2004), p. 64; Darwin Holmstrom and Brian J. Nelson, *BMW Motorcycles* (St. Paul, MN: MBI, 2002), pp. 51, 54; "60 Years Ago: Starting Afresh after the Second World War," in *Mobile Tradition Live: Facts and Background* (Munich: BMW Group Mobile Tradition, 2005), p. 6; Dr. Florian Triebel, "Heinrich Richter-Brohm: The Modernizer," in *Mobile Tradition*, pp. 38–9; and Konstanze Werner, *Kriegswirtschaft und Zwangsarbeit bei BMW* (Munich: Oldenbourg, 2005), p. 363 and throughout.

⁸ Mark E. Spicka, *Selling the Economic Miracle: Economic Reconstruction and Politics in West Germany* (New York: Berghahn Books, 2007), pp. 37–8.

⁹ I am indebted to Dr. Ekkehard Köhler of the Walter Eucken Institut for suggesting this characterization of Erhard's role relative to the Ordoliberal academics. For an overview of Ordoliberalism see Viktor J. Vanberg, "Freiburg School of Law and Economics," in Peter Newman, ed., *The New Palgrave Dictionary of Economics and the Law*, vol. 2 (London: Palgrave Macmillan, 1998), pp. 172–9), reprinted with endnotes as "The Freiburg School of Law and Economics: Predecessor of Constitutional Economics" in Vanberg, *The Constitution of Markets: Essays in Political Economy* (London: Routledge, 2001), ch. 3. For unknown reasons, the journal spells its own name in all caps, *ORDO*.

Economy] to advance classical liberal views in an increasingly hostile environment. Ordoliberalism thus arose as a conscious intellectual resistance movement to Hitler's National Socialist regime. In an introductory essay the three editors contrasted their own views to the still-dominant views of the German historical school once led by Gustav Schmoller (as discussed in [Chapter 4](#)) and at that time led by Werner Sombart (as discussed in [Chapter 6](#)). They particularly rejected the historical school's lack of theoretical foundations and its "relativistic opportunism" in economic policy.¹⁰ Eucken in 1940 wrote: "To criticize Schmoller is to criticize a considerable part of economic doctrine of our time."¹¹

In 1948 Eucken and Böhm (their collaborator Grossmann-Doerth having died during the war) founded the journal *Ordo*. Because the school centered on Eucken and Böhm, who both taught at the University of Freiburg in southwest Germany, the Ordoliberals have been called the Freiburg School. But non-Freiburgers such as Wilhelm Röpke also made important contributions.

Leonhard Miksch, a former doctoral and postdoctoral student of Eucken, served as an aide and key adviser to Erhard in the occupation Economic Administration. Miksch played the crucial role of persuading Erhard to adopt a more free-market policy than he had envisioned in his 1944 think-piece, namely that Erhard should combine his monetary reform with the phasing out of price controls and rationing. In January of 1948 Miksch published an article arguing for the superiority of free market allocation over planning, and warning that economic planning was a threat to democracy. In February he wrote a long memo calling for a phased restoration of the market price system.¹² It was Miksch who actually drafted the decree freeing prices.¹³ It was of course the price decontrol and end to rationing that marked the transition from a largely command economy toward a largely free-market economy. Erhard also consulted other Ordoliberals – Eucken, Röpke, and the economist Alfred Müller-Armack – on the reforms.

¹⁰ Franz Böhm, Walter Eucken, and Hans Grossmann-Doerth, "The Ordo Manifesto of 1936," in Alan Peacock and Hans Willgerodt, eds., *Germany's Social Market Economy: Origins and Evolution* (New York: St. Martin's Press, 1989), esp. pp. 20–2.

¹¹ Quoted by Viktor J. Vanberg, "The Freiburg School: Walter Eucken and Ordoliberalism," Freiburg Discussion Papers on Constitutional Economics no. 04/11, University of Freiburg and Walter Eucken Institut (2004), p. 1.

¹² Mierzejewski, *Ludwig Erhard*, pp. 65–6.

¹³ Here I rely largely on personal correspondence with Dr. Ekkehard Köhler, who has cited Miksch's diary as evidence. See also Nils Goldschmidt and Arnold Berndt, "Leonhard Miksch (1901–1950): A Forgotten Member of the Freiburg School," *American Journal of Economics and Sociology* 64 (October 2005), pp. 973–98.

F. A. Hayek's writings had had some influence on the Ordoliberals in the 1930s and 1940s, and he later taught at the University of Freiburg from 1962 to 1969. There he also served as a member of the board of the Walter Eucken Institute, an independent Ordoliberal research center near the University. Hayek returned to Freiburg at the end of his career, 1977–92.

The Ordoliberals as a school focused on finding appropriate "rules of the game" for the market order, asking: what constitutional structure and legal framework best preserve a free society and economy? They sought to understand the collapse of Germany's post-WWI Weimar Republic (1919–33), and the subsequent rise of Nazism, so that they could find constitutional measures to prevent a repeat. They emphasized two reasons for Weimar's collapse. The first was Germany's hyperinflation of the 1920s, driven by the Reichsbank's excess monetary expansion. The Ordoliberals thus emphasized the need for a monetary system that would maintain a currency of stable purchasing power. They agreed on the need to constrain monetary expansion by the central bank, though they disagreed about which framework would be best for the purpose. Friedrich Lutz (in the 1930s) and Röpke praised the classical gold standard, but Eucken and Erhard viewed its restoration as a lost cause.¹⁴ Eucken favored a commodity-reserve currency proposal. Miksch argued for a gold standard with a competitive monetary system that eliminated the central bank's power to issue money and (like Eucken's proposal) required 100 percent reserves against the private creation of money. Lutz, the last remaining member of the original Freiburg School after 1950, also came to regard the gold standard as a lost cause after the Bretton Woods conference of 1944, and thereafter wrote in favor of an independent central bank with freely floating exchange rates. Adam Geršl has commented on this variety of proposals that the Ordoliberals as a school "left their quest for a precise proposal of an ideal and sound monetary constitution largely unfinished."¹⁵ Whatever the degree of the school's influence on the German central bank established in the 1948 currency reform, the Bank Deutscher Länder [Bank of the German States], or its successor the

¹⁴ Friedrich A. Lutz, "The Functioning of the Gold Standard," in Peacock and Willgerodt, *Germany's Social Market Economy*, pp. 219–41. Lutz (1901–75) was an assistant to Eucken at Freiburg, married the English economist Vera Smith (who had written a dissertation under Hayek at the LSE) in 1937, and left Germany for the United States just before the Second World War; there he taught at Princeton University. After the war he returned to the University of Freiburg for a year and then taught at the University of Zurich. See Leland B. Yeager, "Preface" to Vera C. Smith, *The Rationale of Central Banking* (Indianapolis: Liberty Fund, 1990).

¹⁵ Adam Geršl, "Economics and Politics of Macroeconomic Policies," Charles University in Prague thesis (2006), p. 103–9.

Deutsche Bundesbank, the German Mark did maintain a more stable purchasing power than the other central bank currencies of postwar Europe with the exception of the Swiss Franc.

The second reason for the Weimar Republic's collapse, in the Ordoliberals' view, was the prevalence of industrial cartels, legally sanctioned confederations among major firms that quashed competition. They sought a remedy in active antitrust policy, as discussed later in this chapter. Like earlier classical liberals, they supported free trade as a means to promote competition. But in antitrust policy they assigned a larger economic role to the government than laissez-faire liberals did. They – or at least their student Erhard – also accepted a more extensive government safety net (state pensions, unemployment insurance, and other transfer payments). Erhard campaigned for the entire bundle of policies under the label of the “Social Market Economy” (a term coined by Müller-Armack) and the slogan “Prosperity for All.”

THE SEARCH FOR AN APPROPRIATE CONSTITUTIONAL FRAMEWORK

Röpke described the Ordoliberal perspective in this way:

[Our program] consists of measures and institutions which impart to competition the framework, rules, and machinery of impartial supervision which a competitive system needs as much as any game or match if it is not to degenerate into a vulgar brawl. A genuine, equitable, and smoothly functioning competitive system can not in fact survive without a judicious moral and legal framework and without regular supervision of the conditions under which competition can take place pursuant to real efficiency principles. This presupposes mature economic discernment on the part of all responsible bodies and individuals and a strong impartial state.¹⁶

Viktor Vanberg, recently retired professor of economics at the University of Freiburg, explains that the Ordoliberals' aim is “to *create* conditions under which the ‘invisible hand’ that Adam Smith had described can be expected to do its work.” This implies a focus on constitutional questions:

The policy paradigm is based on the premise that economic policy should seek to improve the framework of rules, the economic constitution, such that a well-functioning and desirable economic order results, rather than seeking to bring about desired outcomes directly by specific interventions into the economic process.¹⁷

¹⁶ Wilhelm Röpke, “The Guiding Principles of the Liberal Programme,” in Horst Friedrich Wünsche, ed., *Standard Texts on the Social Market Economy* (Stuttgart: Gustav Fischer, 1982), p. 188.

¹⁷ Vanberg, “Freiburg School: Walter Eucken,” pp. 7, 5, 8–9.

Economic policy should foster the *co-ordination* of economic activities, not their *subordination*.

The Ordoliberals' objective of shaping the economy by shaping the rules of the game followed from their concern that free market forces could give rise to undesirable institutions, particularly cartels. They emphasized that their program was not *laissez-faire*, which Franz Böhm defined, in Jan Tumlir's summary, as "an approach to legal policy in which all contracts will be enforced, including contracts intended to curtail or eliminate competition," such as price-fixing or cartel agreements among firms.¹⁸ The *laissez-faire* doctrine holds more generally that only a minimal framework is needed to ensure that what arises spontaneously in the market economy is beneficial. The minimal framework is a set of legal rules clearly defining personal and property rights while prohibiting coercion, theft, and fraud, with an enforcement apparatus to ensure that each transaction from which institutions arise is voluntary and thus mutually beneficial. ("Anarcho-capitalists" take the doctrine one step further to argue that society can beneficially privatize even the formation and enforcement of the legal rules.) Against this doctrine, which he attributed to the classical economists, Eucken once again cited the problem of cartels:

Private property and freedom of contract and competition were the governing principles by which the economic system was to be shaped. ... [T]he classical economists ... believed and hoped that a simple system of natural freedom, as [Adam] Smith put it, could bring into being a well-ordered competitive economy. ... The actual economic systems supposedly based on such an economic constitution in fact diverge more and more from these principles. To an increasing extent, for example, "freedom of contract" is used to abolish competition by means of cartel agreements. ... "The simple system of natural freedom," contrary to expectations, does not bring about a competitive order.¹⁹

Here Eucken argues that competitive markets, in Norman Barry's words, "show degenerating tendencies which require constant correction."²⁰ Eucken concluded:

The problem will not solve itself simply by our letting economic systems grow up spontaneously. The history of the last century has shown this plainly

¹⁸ Jan Tumlir, "Franz Böhm and the Development of Economic-Constitutional Analysis," in Alan Peacock and H. Willgerodt, eds., *German Neo-Liberals and the Social Market Economy* (London: Macmillan, 1989), p. 130.

¹⁹ Walter Eucken, *The Foundations of Economics*, trans. T. W. Hutchison (London: William Hodge, 1950), p. 83.

²⁰ Norman Barry, "Political and Economic Thought of German Neo-Liberals," in Peacock and Willgerodt, *German Neo-Liberals*, p. 109.

enough. The economic system has to be consciously shaped. The detailed problems of economic policy, trade policy, credit, monopoly, or tax policy, or of company or bankruptcy law, are part of the great problem of how the whole economy, national and international, and its rules, are to be shaped.²¹

Nils Goldschmidt infers from this last statement a sharp difference in economic policies, namely that “the role of the state in a Social Market Economy is not a ‘night watchman state’ (minimal state) of laissez-faire liberalism” but rather “a ‘strong state,’ powerful enough to repel the endangerment of workable markets by monopolistic power and privilege-seeking.”²² Vanberg has argued that “strong state” meant not an authoritarian state but a state able to resist special-interest lobbying.

It is a matter of degree, of course, *how detailed* of a conscious “shaping” of the economic system is thought desirable. And it is a matter of degree how far the desired shape differs from the pattern expected to emerge under laissez-faire. Ordoliberals differed among themselves on these matters – for instance, Eucken wanted less in the way of income-transfer programs than Müller-Armack did – as well as with laissez-faire liberals. Eucken’s departure in principle from laissez-faire may amount to large or small practical differences in policy recommendations in various areas. But clearly Eucken favored a state more active in shaping the economy than the night watchman state.

What explains the divergence of the Ordoliberals, who had after all been partly influenced by Ludwig von Mises, from the laissez-faire liberals? Despite their declared opposition to Schmoller’s and Sombart’s ideas, Walter Eucken and Franz Böhm may have been partly influenced by the institutionalist ideas of the German historical school. Eirik Furubotn and Rudolf Richter suggest that the “comparative institutional style of reasoning” of Schmoller and Sombart “leads to the theory of *economic order* or constitution developed by Böhm (1937), Eucken (1950), and other representatives of the Freiburg School.” They find that Eucken “suggested the development of an economic morphology to enable economists to ‘exactly ascertain’ the forms of economic order realized since the Industrial Revolution and to determine how the economic process was controlled by these orders.”²³ Such an approach does not, in a Smithian or Mengerian

²¹ Ibid., p. 314.

²² Nils Goldschmidt, “Alfred Müller-Armack and Ludwig Erhard: Social Market Liberalism,” Freiburg Discussion Papers on Constitutional Economics no. 04/12, University of Freiburg and Walter Eucken Institut (2004), p. 2.

²³ Eirik G. Furubotn and Rudolf Richter, *Institutions and Economic Theory: The Contributions of the New Institutional Economics*, 2nd ed. (Ann Arbor: University of Michigan Press, 2005), p. 279.

fashion, seek to explain how various historical institutions have emerged from the market process, but regards them as frameworks existing outside and shaping the results of that process. Helge Peukert concurs: “Eucken’s approach is in accordance with that of institutionalized markets in the tradition of the H[istorical] S[chool].”²⁴ A research agenda that considers institutional orders as frameworks – shaping the market process but not emerging from it – meshes with Eucken’s normative view that the political economist’s responsibility is to craft a constitutional order that will yield the most attractive results, not to accept whatever emerges willy-nilly under *laissez-faire*.

Vanberg offers a somewhat different interpretation, commenting: “The ordoliberals’ critique of *laissez faire* was probably more motivated by their concern to fend off stereotype misrepresentations of the classical liberal doctrine than by their wish to provide a balanced account of 19th century liberal doctrine.” What matters much more is “the positive part of their message, i.e., their argument that an appropriate economic constitution is a prerequisite of a well-functioning market economy.”²⁵

WALTER EUCKEN

Walter Eucken (1891–1950) was the son of Rudolf Eucken, a professor of philosophy at the University of Jena who received the Nobel Prize for Literature in 1908. In one of his later books the father criticized Socialism for its antipathy to human freedom, spirituality, and culture. Walter earned his doctorate in economics in 1914, then marched off to be wounded in the First World War. After teaching in Berlin and Tübingen, he became professor of economics in 1927 at the University of Freiburg, where he spent the rest of his career. Between the wars he wrote *Political Structural Changes and the Crisis of Capitalism* (1932) and *The Foundations of Political Economy* (1939).

Eucken tried to organize resistance to National Socialism among German academics, but with little success. He courageously opposed the efforts of Martin Heidegger, the Rector of the University of Freiburg, to expel Jews from the University. During the Second World War, Eucken was active in an anti-Nazi discussion group. He was questioned several times by the Gestapo while some of the other participants were arrested.

²⁴ Helge Peukert, “Walter Eucken (1891–1950) and the Historical School,” in Peter Koslowski, ed., *The Theory of Capitalism in the German Economic Tradition* (Berlin: Springer, 2000), p. 118.

²⁵ Vanberg, *Constitution of Markets*, pp. 43–4.

Shortly after the war Eucken attended the first Mont Pelerin Society meeting in Switzerland. There he argued for sound currency and the lifting of wage and price controls, the policies Erhard enacted in 1948.

WILHELM RÖPKE

Wilhelm Röpke (1899–1966) was born in the same year as F. A. Hayek. Like Hayek, he returned from military service in the First World War determined to understand and to reform a world gone wrong, and discovered the work of Ludwig von Mises. Röpke later recollected that reading Mises “rendered me immune, at a very early date, against the virus of socialism with which most of us came back from the First World War.” He received his doctorate in economics in 1921 from the University of Marburg, taught at the universities of Jena and Graz, then returned to Marburg as professor of economics in 1929. His German academic career ended only four years later. One week after Hitler was appointed Chancellor in early 1933, Röpke gave a speech calling the National Socialist movement a “revolt against reason, freedom and humanity.” When Hitler’s government began expelling Jews from German universities two months later, he denounced the policy. The Nazis had Röpke removed from his professorship, and sent SS agents to talk to him, the incident that opens [Chapter 6](#). Röpke decided to leave the country. From 1933 to 1937 he taught at the University of Istanbul in Turkey. In 1937 he moved to Geneva, Switzerland, where he briefly became the colleague of the similarly exiled Mises.²⁶

Röpke’s pre-WWII works included *Crises and Cycles* (1936), influenced by the Mises-Hayek theory of the business cycle but with a greater emphasis on the problem of secondary deflation, and *The Economics of a Free Society* (1937). During the war he wrote feverishly on the problems of reconstructing a global economy and society that had been hobbled by bad money, trade restrictions, and collectivist erosion of human dignity. He published four books in as many years: *International Economic Disintegration* (1942), *The Social Crisis of Our Time* (1942), *The Moral Foundations of Civil Society* (1944), and *International Order and Economic Integration* (1945). Ludwig Erhard once said that when he had (clandestinely) gotten hold of Röpke’s books during the war, he “devoured” them like “life-giving water.” Like

²⁶ Richard M. Ebeling, “Wilhelm Röpke: A Centenary Appreciation,” *Freeman* 49 (October 1999), available online at <http://www.thefreemanonline.org/featured/wilhelm-ropke-a-centenary-appreciation/>.

Eucken, Röpke advised Erhard on the abolition of price controls. After the war Röpke wrote *A Humane Economy: The Social Framework of the Free Market* (1958). He continued to advise Erhard through the 1950s.

COMPETITION POLICY

The Ordoliberals favored an activist antitrust policy to preserve business competition, in addition to keeping markets open to the entry of new domestic and foreign firms, and in addition to having the courts refuse to enforce cartel price-fixing agreements. They distinguished beneficial rivalry at serving consumers from harmful practices that hobble rival businesses. Among the latter Eucken included not only price-fixing agreements but also charging different prices to, or refusing to deal with, certain other firms. Eucken sought rules to ban such practices. Here the Ordoliberals diverged from laissez-faire economists who defend such practices as part of the competitive market process, and argue if no violence or trespass is involved then they will not survive unless beneficial. More broadly, economists such as Bastiat and Mises believed that free entry – the absence of such government barriers to competition as monopoly licenses, import quotas, or regulatory and tax discrimination – is enough to keep competition effectively operating in the consumers' interest.

Economist Razeen Sally of the LSE has argued that here Eucken "overestimates the emergence of monopoly in the private sector and ... underestimates the creation and promotion of monopoly through discriminating acts of government." Sally adds that calling for a standing government antitrust agency to monitor and break up firms and practices it finds monopolistic "is perhaps the most unrealistic and faulty aspect of Eucken's work and that of the early Freiburg School" because it mistakes the theoretical concept of "perfect competition" among tiny firms for a useful policy norm. It also fails to reckon that the unavoidably discretionary power of an antitrust agency cannot be squared with the principle of nondiscretionary government by general rules, the principle that is elsewhere Eucken's overriding concern.²⁷

The Ordoliberals did recognize that cartels often arose from government policy. Eucken wrote: "In many sectors of German industry, cartels

²⁷ Razeen Sally, "Ordoliberalism and the Social Market: Classical Political Economy from Germany," in Sally, *Classical Liberalism and International Economic Order* (London: Routledge, 1998), pp. 110, 113–14.

would disappear immediately if tariffs were to go.” He added that “patent law has unexpectedly triggered powerful tendencies toward the formation of monopolies and concentration processes in industry.”²⁸

Eucken reportedly clashed with Mises over the monopoly problem at the 1949 meeting of the Mont Pelerin Society.²⁹ Their disagreement presumably stemmed from Eucken not sharing Mises’s view that the only policy needed to protect consumers from monopoly was to prevent government from granting monopoly privileges.

RENT-SEEKING

Franz Böhm lamented that government “is constantly faced with a considerable temptation to meet the contradictory demands of many pressure groups.”³⁰ The problem of rent-seeking – lobbying by special interest groups seeking to obtain unearned incomes or “rents” by way of special privileges – will persist so long as governments and legislators are empowered to grant such privileges. Business interests will seek monopoly grants, tariffs, restrictive licensing, and bailouts for themselves if they are available. If all rent-seekers were to succeed in getting privileges at others’ expense, the result would be an all-round protectionist regime with less real income for everybody. To escape this outcome, all interests might agree to an economic constitution that banned privileges for any. How then to construct an economic constitution that prevents government from granting privileges? In framing the issue this way, the Ordoliberal’s analysis resembled that of the public choice economists, whose work is discussed in Chapter 13.

ORDOLIBERALISM TODAY

Rudolf Richter notes that the influence of the Freiburg School waned in Germany during the 1960s, eclipsed by the rise of Keynesian economics. Interest began to revive in the 1970s and 1980s with the importation of public choice economics and new institutional economics, schools of thought whose research topics overlap those of the Ordoliberals.³¹ The yearbook *Ordo* continues to be published, as of this writing edited by Hans Otto

²⁸ Quoted by Vanberg, “Freiburg School of Law and Economics,” p. 14 n. 29.

²⁹ Vanberg, “Freiburg School of Law and Economics,” p. 3.

³⁰ Franz Böhm, “Private Law Society and Market Economy” [1966], extracted in Koslowski, *Theory of Capitalism*, p. 185.

³¹ Rudolf Richter, “Institutional Thought in Germany,” University of Saarland working paper (2000).

Lenel – who as Walter Eucken’s research assistant was managing editor of its first volume sixty (!) years ago – together with a large editorial board. The Walter Eucken Institute, founded in Freiburg in 1954, today “carries on the Freiburg tradition of ordoliberalism” by means of “research on constitutional and institutional foundations of a free economy and society.” Its website describes the institute as a home for “basic research on classical liberal ideas and their institutional realisation.” In particular, “the ordoliberal research agenda tries to find answers for questions dealing with an international economic order as well as an economic constitution of the European Union.”³²

³² Statements on the institute’s Web site are available online at <http://www.eucken.de/en/index.htm> and <http://www.eucken.de/en/abouttheinstitute.htm>.

Indian Planning and Development Economics

In 1958, on his first visit to India, the Hungarian-British development economist Peter Bauer was eager to meet the Indian economist B. R. Shenoy. Bauer knew the name from a “Note of Dissent on the Memorandum of the Economists’ Panel,” which Shenoy had written criticizing India’s Second Five-Year Plan. In 1955 the Indian government had recruited twenty-one senior Indian economists for the Panel of Economists, chaired by the minister of finance, to review the plan.¹ Twenty of the economists had signed a memorandum endorsing the plan. Professor Shenoy was the lone dissenter. Shenoy’s “Note of Dissent” was an annoyance to members of the Indian Planning Commission; to Prime Minister Nehru, who had initiated the planning effort; to Nehru’s adviser P. C. Mahalanobis, who had drafted the plan; and even to international aid officials, who overwhelmingly supported the planning effort. Shenoy had become persona non grata in official economic policy-making circles. Bauer soon discovered this firsthand, as he later described:

I called on a senior officer of the economic section of the British High Commission [in New Delhi]. I asked him whether he or his colleagues were in any sort of contact with Shenoy. He said that people there were too busy to have time for acknowledged madmen. . . . I may add that at about the same time I visited the Delhi School of Economics and the National Council of Applied Economic Research. There also I found considerable and often not well founded disagreement with Shenoy’s views, but nothing like the disdain exhibited by this arrogant and ignorant mandarin at the High Commission.²

¹ A complete list of names appears in P. C. Mahalanobis, *The Approach of Operational Research to Planning in India* (Bombay: Asia House, 1963), Appendix II, p. 143 n.

² Peter Bauer, “B. R. Shenoy: Stature and Impact,” *Cato Journal* 18 (Spring/Summer 1998), p. 3.

WHICH DIRECTION FOR AN INDEPENDENT INDIA?

India ejected its British colonial rulers in 1947, after decades of struggle led principally by the revered Mohandas Gandhi. Indian economic policies would now be chosen in New Delhi rather than in London. Britain's colonial policies had linked India's foreign trade to monopoly privileges and forced transfers of wealth from India to Britain. In sharp contrast to Adam Smith, who had recommended ending such transfers by instituting free trade between Britain and its former colonies, Gandhi favored strict protectionism. His economic philosophy of *swadeshi* (own-country) called for national self-sufficiency for India in cloth and anything else that India might produce, even in cases where imports were less expensive or of higher quality than domestically produced goods.³ His preference for local production extended even to the village level, symbolized by the rural villager's spinning wheel placed at the center of a preliminary version of India's new flag. But Gandhi left governing to others. He was assassinated in 1948.

Other independence leaders espoused a variety of economic philosophies. The Punjabi martyr Bhagat Singh had admired Marxism. The Bengali rebel leader Subhas Chandra Bose had called for a fusion of fascism and communism. Two of Gandhi's top lieutenants in the leadership of the Congress Party, Chakravarthi Rajagopalachari and Vallabhbhai Patel, were basically classical liberals, favoring a market-directed economy based on dispersed private property. The most important of Gandhi's lieutenants, however, was Jawaharlal Nehru (1889–1964), who had studied at the University of Cambridge from 1907 to 1910 and completed a law degree at the London School of Economics (LSE) in 1912 and at those places became familiar with Fabian socialist ideas. Nehru attended a lecture on socialism by George Bernard Shaw at Cambridge and later wrote a letter to Shaw reminiscing about it, adding that he supposed that “part of myself, such as I am today, has been moulded” by reading Shaw's writings. Nehru also attended lectures by Keynes.⁴ From the 1930s on Nehru urged the Congress Party

³ Shanti Swarup Gupta, *Economic Philosophy of Mahatma Gandhi* (New Delhi: Concept, 2004), pp. 187–90. I am indebted to B. Chandrasekaran for comments on Gandhi's trade philosophy.

⁴ Amit Varma, “Profit's No Longer a Dirty Word: The Transformation of India” (4 February 2008), <http://www.econlib.org/library/Columns/y2008/Varmaprofit.html>; Frank Moraes, *Jawaharlal Nehru* (Mumbai: Jaico, 2007), p. 46; and Om Prakash Misra, *Economic Thought of Gandhi and Nehru: A Comparative Analysis* (New Delhi: M D, 1995), pp. 53, 66. Shashi Tharoor, on the other hand, has noted that Nehru was not politically active as a student and exhibited little “evidence of an intellectual engagement with Fabianism” at the time. Shashi Tharoor, *Nehru: The Invention of India* (New York: Arcade, 2003), pp. 13–14.

to embrace centrally planned industrialization as its policy for accelerating the development of India.⁵ Designated by Gandhi his political heir, Nehru became the new nation's first prime minister, continuing in office until his death in 1964.

In contrast to the postwar German government under Adenauer and Erhard, India's new government under Nehru moved away from market-friendly policies. As did the contemporary British Labour Party, the Congress Party retained wartime price controls and rationing and pursued a Fabian policy of nationalizing transportation and mining. Congress soon nationalized the life insurance industry, taking control over a major source of investible funds. It gradually extended state dominance over other parts of the commanding heights by reserving areas of heavy industry exclusively to government investment. Congress went a step further than Labour by instituting Five-Year Plans inspired by the Soviet model, though these plans were to be imposed on a mixed economy rather than on a wholly state-owned economic system.⁶ The growth of the Indian economy under Nehru's socialism, as we will see, was disappointing. More vigorous growth awaited the liberalization of the economy that began in the 1980s.

NEHRU'S OWN SOCIALISM

Nehru's economic thought appears to have evolved from the Fabian socialism of his student days into a Marxist phase coinciding with a visit to the Soviet Union in 1927 and peaking around the time of the 1936 *Autobiography* that he wrote while in jail for political agitation. It returned to a pragmatic Fabianism as he rose in the leadership of the Congress Party.⁷ In his autobiography Nehru wrote:

I had long been drawn to socialism and communism, and Russia had appealed to me. . . . I realised more and more how the very basis and foundation of our acquisitive society and property was violence. . . . With all her blunders, Soviet Russia had triumphed over enormous difficulties and taken great strides toward this new order. While the rest of the world was in the grip of the depression and going backward in some ways, in the Soviet country a great new world was being built up before our eyes.⁸

⁵ Bidyut Chakrabarty, "Jawaharlal Nehru and Planning, 1938–41: India at the Crossroads," *Modern Asian Studies* 26 (May 1992), pp. 275–87.

⁶ For an overview see Jagdish Bhagwati and Padma Desai, "Socialism and Indian Economic Policy," in Gene Grossman, ed., Jagdish Bhagwati, *Essays in Development Economics*, (Cambridge, MA: MIT Press, 1985), pp. 59–71.

⁷ Donald E. Smith, *Nehru and Democracy* (New York: Longmans, 1959).

⁸ Jawaharlal Nehru, *An Autobiography* (London: Bodley Head, 1955), pp. 361–2.

Later in the book he summarized his mid-1930s outlook:

I am very far from being a communist... I dislike dogmatism ... I dislike also much that has happened in Russia, and especially the excessive use of violence in normal times. But still I incline more and more towards a communist philosophy.⁹

Time magazine critically scrutinized Nehru's Fabian views as of 1951:

Beatrice and Sidney Webb, the godparents of Fabian Socialism, are in a truer sense his creators than Vishnu and Siva. ... The closest he has come to defining his idea of practical Socialism is a "democratic commonwealth" with the key means of production owned by the state, but much industry in private hands. ...

He shares all the Socialist's emotional tenets about the capitalist order. In consequence, he has the Socialist's undisguised contempt for capitalism, reinforced by the aristocratic Brahman's contempt for the bania (shopkeeper) caste. He speaks of the "bania civilization of the capitalist West," of the West's "cutthroat civilization." Utterly unlike Gandhi, he admires modern production methods, and wants to bring them to India (he has announced that India will in time develop her own atomic energy program). But as a Socialist he believes that capitalism, after its prodigies of production, is bound to make a bloody and cruel mess of distribution. This view is based on the standard British Socialist reading of 19th Century economic history. His understanding of 20th Century American capitalism is negligible.¹⁰

John Kenneth Galbraith, who as the U.S. ambassador to India knew Nehru fairly well, commented that "the center of Nehru's thinking was Laski," the Fabian-turned-Marxist LSE professor whom we met in [Chapter 7](#). Galbraith added that India was "the country most influenced by Laski's ideas." The historian Ramachandra Guha has quoted the remark of an unnamed wit in the 1950s that "in every meeting of the Indian Cabinet there is a chair reserved for the ghost of Professor Harold Laski."¹¹ Nehru's critique of capitalism, like Rexford Tugwell's, also appeared to have been influenced by J. A. Hobson's overproduction theory of depressions and imperialism.

The Indian diplomat Shashi Tharoor, author of *Nehru: The Invention of India* (2003), was asked in an interview whether "Fabian socialism, which had been fashionable among the British-educated Indians of his generation,"

⁹ Ibid., p. 591.

¹⁰ "Pandit's Mind," *Time* (7 May 1951).

¹¹ Quoted by Isaac Kramnick and Barry Sheerman, *Harold Laski: A Life on the Left* (London: Penguin Press, 1993), p. 589; Ramachandra Guha, "The LSE and India," *Hindu Magazine* (23 November 2003), <http://hindu.com/thehindu/mag/2003/11/23/stories/2003112300120300.htm>.

together with Nehru's "aristocratic and intellectual background" made Nehru distrust free enterprise – in effect, whether *Time's* 1951 critique was correct. Tharoor answered:

In fairness to Nehru, I think one can say that it was not just a question of intellectual fashion. He was genuinely convinced that India's problems of poverty and suffering were so great that he could not rely upon those motivated purely by profit. He felt it was necessary to have the state to be the disinterested *ma-baap* [mother-father] of the people who would act in the interests of the common person because the state would not be motivated by profit. Of course, what he failed to realize was that as a result he'd put bureaucrats in charge of the commanding heights of the economy rather than businessmen. And these bureaucrats were better at regulating stagnation and distributing poverty than actually generating wealth.¹²

NEHRU'S ECONOMIC ADVISERS

How much of the responsibility for growth-suppressing economic policies should be assigned to Nehru himself? The Indian-born economist Jagdish Bhagwati of Columbia University – today persuaded by experience that India's best prospects for economic improvement lie with free trade and promarket reforms – has answered, "I lay the blame on us economists for having provided Nehru with the wrong ideas."¹³ Bhagwati, who took an undergraduate degree from Cambridge in 1956, followed by graduate study at MIT and Oxford, has described from personal experience the progressive or socialist economic policy orientation in which he and many of India's other young economists were trained abroad:

Let me first observe that a number of economists like me and Amartya Sen came back from the West after studying at Cambridge, Oxford and the London School of Economics. We were all trained in a left wing tradition; our teachers had been radical or progressive economists from a little left of center to all the way to the left, with luminaries such as Nicky Kaldor and Joan Robinson. We were taught basically about market failures and how when markets failed, the invisible hand of Adam Smith would fail: it would point in the wrong direction. For the invisible hand to point in the right direction

¹² Shashi Tharoor, "The Talented Mr. Tharoor: Interview by Murali Kamma," *Khabar Magazine* (February 2004). Available on Tharoor's Web site at <http://www.shashitharoor.com/interviews/ktcm0204.htm>.

¹³ Jagdish Bhagwati with H. D. Vinod, "A Conversation with Jagdish Bhagwati on Indian Politics, Globalization, Socialism, Entrepreneurship, and African Aid" for *Indian Journal of Economics and Business*. Interview conducted 10 August 2005. Available on Bhagwati's Web site at http://www.columbia.edu/~jb38/index_profiles.html.

we would have to intervene to adjust market prices so that they correctly reflected true social costs.

Now, when we returned to India with this training, we were programmed to endorse all kinds of interventions because India, and indeed most underdeveloped countries, seemed to be afflicted by all kinds of market failures. I'm talking about the late 50s and early 60s.... The ethos was simply interventionist.¹⁴

Nicholas Kaldor and Joan Robinson, the Cambridge faculty members whom Bhagwati mentions, were leading Keynesians who were also influenced by Marxism. Bhagwati's contemporary Amartya Sen, the 1998 Nobel laureate in economics, received his undergraduate and doctoral degrees at Cambridge in 1956 and 1959.

The ethos that the economic development of a poor country requires government planning and extensive intervention was not limited to Cambridge and Oxford but pervaded leading Western doctoral programs in economics during the 1950s and 1960s. Indian economics students who went abroad for graduate training during this period often returned home to begin their careers working on the staff of the Indian Planning Commission or at the Planning Unit of the Indian Statistical Institute. For example, T. N. Srinivasan, later Bhagwati's coauthor, worked at the Planning Unit after writing his dissertation under Tjalling Koopmans at Yale University.¹⁵ Koopmans shared the 1975 economics Nobel for his work on concepts of optimal resource use, concepts that in his view either private enterprises or public agencies could apply, whether coordinated through a market price system or through central planning.¹⁶ Another contemporary, Sukhamoy Chakravorty, was trained in development-planning ideas by Jan Tinbergen – 1969 Nobelist, econometrics pioneer, and director of the Netherlands' Central Planning Bureau – at the Netherlands School of Economics and by Paul Rosenstein-Rodan and Richard S. Eckaus at MIT. Rosenstein-Rodan had authored an influential 1943 article spelling out a case for government-directed industrialization in a poor country: investment in any one sector alone might be unprofitable, yet investments in many sectors might mutually reinforce one another; thus all might be

¹⁴ Ibid. We discuss the theory of market failure in [Chapter 13](#).

¹⁵ The roll call includes Pranhbab Bardhan (Ph.D. from Cambridge), Mrinal Datta-Chaudhuri (Ph.D. from the Massachusetts Institute of Technology), B. S. Minhas (Ph.D. from Stanford), Kirit Parikh (M.A. from MIT), Ashok Rudra (Ph.D. from LSE), and Suresh D. Tendulkar (Ph.D. from Harvard). I thank T. N. Srinivasan for information.

¹⁶ Tjalling Koopmans, "Concepts of Optimality and Their Uses," Nobel lecture (11 December 1975).

profitable if undertaken in choreographed fashion.¹⁷ The related idea of an “underdevelopment trap” is discussed toward the end of this chapter.

The former Indian central banker A. Vasudevan has commented that the Indian economists who studied abroad “were largely influenced by the Keynesian prescription of overcoming the economic Depression by large state expenditure” and therefore supported government investment to “generate employment all round.” Many of them “were enamoured by the success stories of Soviet experiments with planning” in which “heavy machine-building industries would be set up by the state in order to improve the productive capacity of the economy.”¹⁸ Older Indian economists shared the same views. As already noted, twenty of the twenty-one senior economists asked to review the Second Five-Year Plan had endorsed it.

PROPLANNING WESTERN ADVICE

Western advisers strongly supported Nehru’s planning efforts. Jairam Ramesh, an economist and policy maker who worked at the Planning Commission in the 1980s, has commented:

In the 1950s ... the advice was, you must have a state-led model of industrial growth; the public sector must occupy what came to be called the commanding heights of the economy. And that’s why steel, coal, machine tools, capital goods, all the areas of heavy industry were in the public sector and not in the private sector.¹⁹

Among the leading Western economists who visited India and endorsed or consulted on the five-year plans were John Kenneth Galbraith, Nicholas Kaldor, Joan Robinson, Tjalling Koopmans, Oskar Lange, Paul Rosenstein-Rodan, Jan Tinbergen, Ragnar Frisch, and Gunnar Myrdal. Myrdal, the Swedish socialist economist who shared the 1974 economics Nobel Prize with F. A. Hayek, wrote in 1956 that “grand-scale national planning” is “unanimously endorsed by governments and experts in the advanced countries.” The dissenting free-market economist P. T. Bauer noted in reply that

¹⁷ Paul Rosenstein-Rodan, “Problems of Industrialization of Eastern and Southeastern Europe,” *Economic Journal* 53 (June–September 1943), pp. 202–11. Rosenstein-Rodan was an old acquaintance of Hayek’s, both having studied at the University of Vienna in the early 1920s, but their perspectives on economic policy had thereafter diverged.

¹⁸ A. Vasudevan, “Moving from ‘Gandhigiri’ to ‘Gandhivaad,’” *Hindu Business Line* (28 September 2006).

¹⁹ Jairam Ramesh, *Commanding Heights* interview (1 July 2001), http://www.pbs.org/wgbh/commandingheights/shared/minitextlo/int_jairamramesh.html.

Western economists were in fact not *unanimous* in endorsing development planning policies.²⁰

GALBRAITH'S SUPPORT FOR INDIA'S PLANNING

John Kenneth Galbraith visited India for three months in 1956 to consult with the Planning Commission. He befriended Nehru and P. C. Mahalanobis, the chief architect of Indian planning. In 1960, appointed by President Kennedy, Galbraith returned for two years as U.S. ambassador to India. He unofficially served as a spokesman for institutionalist, Keynesian, and proplanning economic views. He evidently considered Germany's dramatic market-led recovery to be irrelevant to the case at hand. In a series of lectures to Indian audiences on economic development, Galbraith assured his listeners:

What is not in doubt is the need for planning by the less developed country... [T]here is much that the market can usefully encourage and accomplish. But the market cannot reach forward to take great strides when these are called for. As it cannot put a man in space so it cannot bring quickly into existence a steel industry where there was little or no steelmaking capacity before. Nor can it quickly create an integrated industrial plant. Above all, no one can be certain that it will do so in countries where development has lagged and where there is not only a need for development but an urgent demand that it occur promptly. To trust the market is to take an unacceptable risk that nothing, or too little, will happen.

... This is why in the developing country the word planning has ceased to be controversial. Five-year plans are the invention of, and were once the exclusive possession of, the Soviet Union. Now Americans and Western Europeans assemble without thought to consider how they may help finance the five-year plans of India or Pakistan. The country which does not have goals, and a program for reaching those goals, is commonly assumed to be going nowhere. This may well be so.²¹

In its "early stages of development," Galbraith advised, India first needed to lay the institutional groundwork for planning. In the later stages the time would arrive for "detailed planning of investment." In a "standard modern development plan" the government planners make "decisions on how best to employ scarce capital resources." Disregarding the socialist calculation

²⁰ Gunnar Myrdal, *Development and Under-development* (Cairo: National Bank of Egypt, 1956), p. 65; P. T. Bauer, *Dissent on Development* (Cambridge, MA: Harvard University Press, 1976), p. 70.

²¹ John Kenneth Galbraith, *Economic Development in Perspective* (Cambridge, MA: Harvard University Press, 1962), pp. 35–6.

debate, Galbraith could not imagine any theoretical objection to assigning the allocation of capital resources to government rather than to competitive markets: "One can find little fault, in principle at least, with the way this part of the planning task is performed."²²

The central plan, rather than consumer savings decisions, would answer the key question: "How much should be withheld from present consumption to nurture increased future consumption?" And the plan would decide the proper mix of various consumer goods. Galbraith, the follower of Veblen, recommended that India's planned economy should not aim to emulate Western market economies in catering to the frivolous demands of the well-to-do. Instead "attention must be accorded goods that are within the range of the modal income – that can be purchased by the typical family."²³ Galbraith spoke as though he had never visited a supermarket or five-and-dime store in a Western market economy, and as though he had never seen a Sears and Roebuck catalog, all of which were filled with goods for people of modal income.

India took the advice offered by Galbraith and other Western economists and did not "trust the market." The U.S. government strongly supported India's planning efforts, contributing \$4 billion in foreign aid between 1947 and 1962. The dollars allowed the Indian government to purchase foreign equipment for its planned expansion of heavy industries. "The tragedy of the situation," wrote B. R. Shenoy in 1963, "is that India's policies of the past decade or more have been producing chaos, not growth, and foreign aid has been feeding the very policy measures responsible for it."²⁴ The Ford Foundation pitched in with grants to train economists and statisticians for the Planning Commission, coordinating its programs with the commission member Pitamber Pant.²⁵ Unfortunately, the outcome of planning was exactly what Galbraith had hoped to avoid by planning: Nothing, or too little, happened in the way of economic development.

THE MAHALANOBIS PLAN

Nehru created an Indian Planning Commission in 1950 to formulate the central economic plan. The relatively modest first plan of 1951–6 focused

²² Ibid., pp. 37, 38.

²³ Ibid., pp. 43–4.

²⁴ B. R. Shenoy, *Indian Planning and Economic Development* (Bombay: Asia Publishing House, 1963), p. 12.

²⁵ Eugene S. Staples, *Forty Years: A Learning Curve: The Ford Foundation Programs in India 1952–1992* (1992), p. 46. Available online at <http://www.fordfound.org/archives/item/0136>.

on government spending for infrastructure, such as agricultural irrigation systems, and intervened little in private industry. The Congress Party in December 1954 formally endorsed “a socialist pattern of society” as its objective. Henceforth the government’s plan would steer industrial investment. Bauer has usefully summarized the main features of the more ambitious and controversial Second Five-Year Plan of 1956–61:

The principal elements of the Plan are a large increase in investment, especially by the Government; extension of the public sector; substantial expansion of industrial capacity, very largely in heavy industry, and primarily by the Government; the financing of a large proportion of government outlay by the creation of money; partial or complete nationalization of certain industrial and commercial activities; large-scale subsidization of cottage industries (that is domestic industries or handicrafts), as well as massive assistance to the co-operative movement and state participation in it; various institutional changes, especially rural land reform; and close control over the private sector, especially by means of direct controls.²⁶

To frame the Second Five-Year Plan, Nehru chose the statistician Prasanta Chandra Mahalanobis from the Indian Statistical Institute in Calcutta. The author and former businessman Gurcharan Das has described Mahalanobis as India’s “central intellectual figure of the 1950s” and added:

He symbolized a distinctive feature of the Nehru era: to bring the rationality of technocrats, economists, and scientists to bear on decision making.... Such was the power of his mind and personality that he became the central focus of policy making and began to dominate the planning process.²⁷

According to Mahalanobis’s own account, Nehru had been discussing economic planning with him since 1940.²⁸ Mahalanobis and the Planning Commission member Pitamber Pant (under whom the young economists Bhagwati and Srinivasan worked in the early 1960s)²⁹ became Nehru’s chief economic advisers. Nehru gave Mahalanobis the official title of *Honorary Statistical Adviser to the Government of India*.

Mahalanobis offered a “draft plan frame” in 1955 that emphasized “the rapid development of heavy machine building, heavy electricals, steel and non-ferrous metals, and energy to supply a sound foundation for economic self-reliance.”³⁰ Intense investment in building up domestic heavy

²⁶ P. T. Bauer, *Indian Economic Policy and Development* (Bombay: Popular Prakashan, 1964), p. 31.

²⁷ Guruchan Das, *India Unbound* (New Delhi: Viking, 2000), pp. 97–8.

²⁸ P. C. Mahalanobis, *Talks on Planning* (New York: Asia Publishing House, 1961), p. 3.

²⁹ Bhagwati, Web site; T. N. Srinivasan, “Ashok Rudra: Some Memories,” *Economic and Political Weekly* (14 November 1992), pp. 2465–6.

³⁰ Mahalanobis, *Talks on Planning*, p. 5.

industry today was expected to generate greater output of machines for other domestic industries to use in future years, yielding growth in the output of consumer goods further down the line. Any economist familiar with Hayek's capital theory would recognize the implied distinction between earlier and later stages of production. But the leading Indian Hayekian – B. R. Shenoy – understandably lamented what appeared to be planned *overinvestment* in the earlier stages (machine building) at the expense of striking the appropriate balance between the earlier and the later stages (consumer goods production) for a capital-poor country. Shenoy also lamented the overemphasis on industrialization given India's comparative advantage in agriculture.³¹ The plan's choice of production activities was inappropriate given local resources and knowledge.

Mahalanobis's "draft plan frame" and the official Second Five-Year Plan both declared a need to give priority to heavy industry. After quoting those declarations at length, Bauer aptly commented: "It will be noted that neither demand nor cost is mentioned here. . . . This is an engineering (or military) and not an economic argument."³²

The "inward-looking industrialization" character of the Mahalanobis plan was inspired in part by Soviet planning practice and in part by the Harrod-Domar model, a mathematical formula for economic growth that had been developed as a supplement to Keynesian macroeconomics by the British economist Roy Harrod and the Polish-American economist Evsey Domar in the 1940s. In the Harrod-Domar model, an economy grows at a rate proportional to its ratio of investment to output (and also proportional to the productivity of that investment). Bhagwati has noted the enormous influence of the Harrod-Domar model on development planning in India and elsewhere. The model "suggested that the central developmental problem was simply to increase resources devoted to investment." Planners typically focused on increasing the gross volume of investible funds provided by domestic savings and foreign aid and neglected the need for markets or other self-correcting mechanisms that would steer the funds into the most productive investments.³³

Time reported that "Mahalanobis got the services of ten Soviet economists to assist his staff." But the second plan aimed to give Nehru's government control over the economy's commanding heights in Fabian rather

³¹ Shenoy, *Indian Planning*, pp. v, 2, 18, 26.

³² P. T. Bauer, *Indian Economic Policy*, pp. 45, 60.

³³ Brian Snowdon, *Conversations on Growth, Stability, and Trade* (Cheltenham, UK: Edward Elgar, 2002), pp. 70–1.

than Soviet fashion: “An army,’ he [Nehru] explained, ‘does not occupy a country by placing a soldier in every nook and cranny: a gun mounted on a hill enables an army to control surrounding areas effectively.’”³⁴ The plan called for nationalizing more than a dozen industries and restricting imports of consumer and producer goods.

Mahalanobis based his quantitative recommendations for the Second Five-Year Plan on stylized mathematical and statistical representations of the Indian economy. His representations were related not only to the Harrod-Domar model, but also to the planning model of an earlier Soviet economist named Feldman, and to the *input-output analysis* pioneered by the Russian-born Harvard economist Wassily Leontief.³⁵ The economist Martin Bronfenbrenner observed in 1962:

The leading development-planning models have been based upon elaborate input-output tables for leading industries, developed for the United States by Wassily Leontief and applied to developing countries by Hollis Chenery on the Western and by Oskar Lange on the Eastern side of the Iron Curtain.

Mahalanobis’s models were less elaborate than Leontief’s or the other examples mentioned, dividing the economy into fewer sectors. But as Bronfenbrenner noted, “Few other formal development models have been as influential for actual development policy in any country as those devised by Mahalanobis.”³⁶

The Mahalanobis plan frame assumed that India needed heavy industry for its development but also assumed that heavy industry provides few jobs per dollar invested. Consequently, and partly to appeal to Gandhian sensibilities and rural interests, the plan combined government direct investment into heavy industry with government subsidies to labor-intensive cottage industries to provide more jobs. For example, it proposed to cap the output of textile mills and instead increase the output of handloom cloth.³⁷ Tariffs would shelter the domestic handloom industry from competition

³⁴ “Five-Year Plan,” *Time* (17 October 1955).

³⁵ Richard S. Eckhaus, “Planning in India,” p. 308.

³⁶ Martin Bronfenbrenner, “An Econometric Model of Economic Development,” *Science* 135 (9 February 1962), p. 409. For a devastating technical critique of the Mahalanobis model as “a severely rigid construct” based on restrictive assumptions that lacked empirical grounding, see Jagdish N. Bhagwati and Sukhamoy Chakravarty, “Contributions to Indian Economic Analysis: A Survey,” *American Economic Review* 59 (Supplement, Surveys of National Economic Policy Issues and Policy Research) (September 1969), pp. 6–8.

³⁷ The text of the Planning’s Commission’s proposal for the Second Five-Year Plan is available online at <http://www.planningcommission.gov.in/plans/planrel/fiveyr/welcome.html>.

with lower-cost modern foreign producers. Shenoy in 1963 noted the practical results of these policies for India's textile producers and consumers:

But the cotton textile industry, which ... accounts for over one-third of Indian industrial activity, is riddled with a perplexing complex of restrictionist directives and regulations; the expansion of production and modernization of the textile mills is constricted, the former rather drastically. This has led to the semi-stagnation of the production of cloth during the past four years. In the context of a rising population, the price of cloth has risen sharply, causing retrograde income shifts from consumers to producers, who get monopoly advantages through state action.³⁸

INPUT-OUTPUT ANALYSIS

Wassily Leontief (1906–99) received his first degree in economics at the University of St. Petersburg. He left Russia to pursue his doctoral degree at the University of Berlin, where he studied under two very different economists: Werner Sombart, the successor to Gustav Schmoller as leader of the German historical school, and Ladislaus von Bortkiewicz, a statistician with interests in economic theory. Leontief taught at Harvard for forty-four years before finishing his career at New York University. His best-known books were *The Structure of American Industry* (1941) and *Input-Output Economics* (1966). He received the Nobel Prize in economics in 1973.

Leontief often acknowledged that he had found inspiration and a prototype of input-output analysis in Quesnay's *Tableau Economique*, the pre-Smithian work of physiocratic economics mentioned in [Chapter 8](#). Leontief's analysis used the mathematical tools of matrix algebra to quantify interindustry flows. Its input-output tables, as Bronfenbrenner explained, "indicate in considerable detail the interdependencies between different industries, both as sources for materials (inputs) and outlets for products (outputs)."³⁹ The analysis might be used, for example, to address the question: If automobile output is to increase 5 percent, how much more steel, electricity, and so on, will be needed as inputs, taking into account such interrelations as the steel industry's use of electricity?

While it provides a *consistency* check on centrally planned allocation and for that reason has been used by central planners around the world since 1950, input-output analysis does not point toward an *efficient* allocation. It assumes that input proportions, say, pounds of steel per automobile, are fixed at historical ratios even as relative input prices change. An efficient

³⁸ Shenoy, *Indian Planning*, pp. 4–5.

³⁹ Bronfenbrenner, "An Econometric Model of Economic Development."

automobile industry, by contrast, uses less steel per car as the price of steel rises relative to the prices of substitute materials.

THE PERMIT RAJ

The British Raj had departed. Nehru's Second Five-Year Plan introduced a new regime: the Permit Raj. With output quotas planned, businesses needed special permits to import equipment, manufacture new products, expand or open a new factory, or close a factory. In the words of Jairam Ramesh, it was a "sequential licensing system" in which "a group of wise men in government decided that so many million tons of steel should be produced, and then licenses were then doled out for those X million tons of steel."⁴⁰ A licensed steelmaker could legally produce only so many tons per year, and no more. Similar controls were imposed on other major industries.

Indira Gandhi, Nehru's daughter, who became prime minister in 1966–77 and 1980–4, increased the licensing system's complexity and restrictiveness. She nationalized the fourteen largest banks in 1969. The government-owned banks now directed their loans to the industries favored by the plan – or to cronies of politicians with pull. Neither government lenders nor their borrowers faced market discipline when borrowers could not repay because they had poorly invested the funds or because they never intended to repay. Economic decisions became ever more highly politicized and bureaucratized. India was left with what the economist Meghnad Desai has called "hobbled and underdeveloped state capitalism," overlaid with a veneer of planning. In practice, "India was not a planned economy; it was an economy for which a plan had been made."⁴¹

Licensing restrictions gave monopoly profits to the protected firms fortunate enough to hold licenses. Not surprisingly, the process of seeking and granting licenses quickly became marked by bribery and corruption. Gurcharan Das has detailed the labyrinthine licensing process and its results:

[T]he way that the bureaucracy went about administering the licensing system created a nightmare for the entrepreneur.

An untrained army of underpaid, third-rate engineers ... [with] inadequate and ill-organized information and without clear-cut criteria, vetted thousands of applications on an ad-hoc basis. The low-level functionaries took

⁴⁰ Ramesh, *Commanding Heights* interview.

⁴¹ Meghnad Desai, *Development and Nationhood: Essays in the Political Economy of South Asia* (New Delhi: Oxford University Press, 2005), p. 134.

months in the futile micro-review of an application and finally sent it for approval to the administrative ministry. The ministry again lost months reviewing the same data before it sent the application to an interministerial licensing committee of senior bureaucrats, who were equally ignorant of entrepreneurial realities, and who also operated on ad hoc criteria in the absence of well-ordered priorities. . . . After the minister's approval, the investor had to seek approval for the import of machinery from the capital goods licensing committee. If a foreign collaboration was involved, an interministerial foreign agreements committee also had to give its consent. If finance was needed from a state finance institution, the same scrutiny had to be repeated afresh. The result was enormous delays, sometimes lasting years, with staggering opportunities for corruption. . . .

Large business houses set up parallel bureaucracies in Delhi to follow up on their files, organize bribes, and win licenses. . . .

Tragically, the system ended in thwarting competition, entrepreneurship, and growth, without achieving any of its social objectives. It fostered monopolies and encouraged uneconomic-scale plants employing second-rate technology Thus, licensing was an unmitigated disaster. It raised costs, brought delays, arbitrariness, and corruption, and achieved nothing.⁴²

Vasudevan has concurred: India's "experience with a dirigiste [state-directed] regime from 1956 to mid-1991 . . . bred allocative inefficiency, corruption and nepotism."⁴³

A particularly notorious example of inefficiency, corruption, and nepotism was the 1971 award of an exclusive license – plus free land, tax breaks, and research-and-development funding – from the government of Indira Gandhi to her son, Sanjay. The license and subsidies were for the domestic production of a low-priced automobile. Sanjay had no experience in the automobile industry, and in 1977 his Maruti Corporation went into bankruptcy without having produced a single car for sale. Only after Sanjay's death in 1980 did the firm revive and become successful under a joint-venture arrangement with the Japanese carmaker Suzuki.

The predictable economic results of quantity and price controls were smuggling and black markets. Ramesh has elaborated:

You had a black market for cement. You had a black market for every conceivable product, consumer or industrial. So we were running a shortage economy. A shortage economy meant some people were extracting rents from the economy. The monopolists became rich . . . and consumers suffered.⁴⁴

⁴² Guruchan Das, *India Unbound*, pp. 103–4. The bureaucracy described reminds one of the Terry Gilliam film *Brazil* (1985).

⁴³ A. Vasudevan, "Moving from 'Gandhigiri' to 'Gandhivaad'."

⁴⁴ Ramesh, *Commanding Heights* interview.

Black markets and smuggling became so endemic that a characteristic plotline in Bollywood movies of the 1970s pitted an incorruptible young hero (often played by the superstar Amitabh Bachchan) against corrupt smugglers, with the movie's climactic brawl taking place in the smugglers' vast warehouse filled with unlicensed goods.

The former finance minister, Palaniappan Chidambaram, who helped reform the system in the 1990s, has summarized the problems of the Permit Raj succinctly:

[E]nterprise was stifled, rampant corruption, efficiency was penalized, growth was crippled and because of this protective market, the Indian people were being given shoddy goods and services at very high prices. Only rent-seekers flourished.⁴⁵

On the stifling of enterprise, Shashi Tharoor has observed that Nehru

certainly did not give Indian entrepreneurs the chance to grow and develop. Even those entrepreneurs who under the British were able to carve out something of a role for themselves – Tata, Kirloskar and so on – were stifled under the Nehru Raj. Tata started a successful, highly regarded airline ... and Nehru nationalized it. Kirloskar wanted to manufacture cars ... and Nehru controlled the number of licenses given out. And of course he did give it to another Indian capitalist, Birla, but still there was no question of widespread competition.⁴⁶

SLOW GROWTH

In 1960, India's real per capita income (gross domestic product or GDP) was approximately \$891, slightly more than three-fifths of South Korea's \$1,458. After three decades of slow growth under the Permit Raj, India's income had only slightly more than doubled, while income in South Korea's rapidly growing export-oriented economy had risen to 6.5 times its starting level. As a result India's 1990 real income of \$1,898 was slightly less than one-fifth of South Korea's \$9,593.⁴⁷ Chidambaram has commented:

India suspected capitalists, it suspected the profit motive, and it tried to nail it down, block it, and thought that all growth would come from government

⁴⁵ Palaniappan Chidambaram, *Commanding Heights* interview (6 February 2001), http://www.pbs.org/wgbh/commandingheights/shared/miniextlo/int_pchidambaram.html.

⁴⁶ Tharoor, "The Talented Mr. Tharoor."

⁴⁷ All figures in year-2000 U.S. dollars, using a chain-weighted deflator adjusted for purchasing-power parity. Alan Heston, Robert Summers, and Bettina Aten, *Penn World Table Version 6.2*, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, September 2006. Series rgdpch, Real GDP per capita (Constant Prices: Chain series).

planning. . . . [B]y the late 1980s Korea was a miracle economy, and India was a stagnant, slow-trot kind of economy. . . . [T]he whole idea that there was a big market out there did not strike Indian planners.⁴⁸

Manmohan Singh, an economist who became India's prime minister in 2004, similarly explained India's poor economic growth under pre-1991 policies to an interviewer in 2001:

If you have a rigidly controlled economy, cut off from the rest of the world by infinite protection, nobody has any incentive to increase productivity and to bring new ideas. Therefore, the license Permit Raj became a great handicap in carrying forward the sustained process of sustained growth.⁴⁹

Evidence of protectionism could be seen in the fact that India in 1988 had the lowest ratio of imports to GDP of any country in Asia.

B.R. SHENOY

The economist Bellikoth Ragunath Shenoy (1905–78), author of the lone “Note of Dissent” on the Second Five-Year Plan (1955), had studied at the London School of Economics, where he attended F. A. Hayek's 1931 lectures that were published as *Prices and Production*. Shenoy taught at universities in Ceylon (now Sri Lanka) and India before becoming director of monetary research at the Reserve Bank of India and then serving as India's representative to the World Bank and the International Monetary Fund. He returned to academia in 1954 to become professor of economics and director of the School of Social Sciences at Gujarat University.⁵⁰ Shenoy published dozens of academic articles – perhaps the first Indian economist to publish in a leading Western economics journal – and newspaper opinion pieces on economic policy. He spelled out his criticisms of India's planning and its Permit Raj in *Problems of Indian Economic Development* (1958) and *Indian Planning and Economic Development* (1963). Peter Bauer later commented: “Shenoy has had no influence on Indian economic policy. . . . I believe however that he has had considerable impact on the conduct and thinking of Indian economists younger than

⁴⁸ Chidambaram, *Commanding Heights* interview.

⁴⁹ Manmohan Singh, *Commanding Heights* interview (6 February 2001), available online at http://www.pbs.org/wgbh/commandingheights/shared/minitextlo/int_manmohansingh.html.

⁵⁰ Shenoy's daughter told an interviewer, “He could have become the governor of the RBI [Reserve Bank of India] but he couldn't stand it anymore. So he took a cut of half his salary and went back into academic teaching.” Sudha Shenoy, “The Global Perspective: Interview with Sudha Shenoy,” *Austrian Economics Newsletter* 23 (Winter 2003), p. 2..

himself.”⁵¹ One of those younger economists was his own daughter, Sudha Shenoy, who was one of the first to promote liberalization of Indian economic policy during the 1970s.⁵²

In opposition to Mahalanobis's plan (and in contrast to Galbraith's lectures), Shenoy's brief "Note of Dissent" rejected forced industrialization in which government compels a greater sacrifice of present consumption than individuals prefer to make in order to build up industry for the sake of later consumption. He objected to the nationalization of business firms: "Efficient management of business and industrial concerns ... is best left to private entrepreneurs." He objected to price controls and compulsory allocations: "There are great advantages in allowing freedom to the economy, and to the price system in the use and distribution of the needs of production."⁵³ In his books Shenoy elaborated these points.

MILTON FRIEDMAN'S DISSENT

Milton Friedman also dissented from the Indian planning consensus. He visited India in 1955, under the auspices of the U.S. International Cooperation Administration, and wrote a memorandum (dated November 1955) on the Second Five-Year Plan.⁵⁴ The Eisenhower administration reportedly wanted to provide a counterweight to the proplanning advice of so many Western economists. Friedman's memorandum used basic economics to anticipate the inefficiency and slow growth that the Permit Raj would produce.

Friedman questioned Mahalanobis's focus on the ratio of investment to national income, noting that decisions about the specific types of investment – for example, the mix of investments in human capital versus machines – were more important than decisions about the overall magnitude. India's investment policy, the compromise between Nehru's ambitions for heavy industry and Gandhi's partiality to village handicrafts, was wasting resources at both ends. Friedman commented: "This policy threatens an

⁵¹ Peter Bauer, "B. R. Shenoy: Stature and Impact," *Cato Journal* 18 (Spring/Summer 1998), p. 8. For other discussions of B. R. Shenoy's short-run policy dissidence but longer-run influence see Kamta Prasad, ed., V. K. R. V. Rao and B. R. Shenoy: *Economic Ideas in Contrast* (Delhi: Deep and Deep, 2001).

⁵² Sudha Shenoy, *India: Progress or Poverty?* (London: Institute of Economic Affairs, 1971).

⁵³ B. R. Shenoy, "A Note of Dissent," in *Papers Relating to the Formulation of the Second Five-Year Plan* (Delhi: Government of India Planning Commission, 1955).

⁵⁴ Milton Friedman, "Memorandum to the Government of India 1955," online at www.ccsindia.org/friedman.asp. All quotes in the present section of the chapter are from this document.

inefficient use of capital by combining it with too little labor at one extreme and an inefficient use of labor by combining it with too little capital at the other extreme.” The market, he suggested, would most likely support investment in *light* industry, providing a seedbed from which heavy industry might later develop.

Friedman advanced an argument – reminiscent of the earlier Mises-Hayek case against central planning – for letting the market’s profit-and-loss test guide investment:

It is impossible to predict in advance the lines of investment that will turn out to be the most productive – as the failure of so many private enterprises amply demonstrates. There is therefore great need for a system that is flexible and can change easily.

Central government restrictions that attempted to direct investment were wasting the time of businessmen, who had to figure out ways to evade the restrictions, and of public servants, who endlessly tried to plug the loopholes that businessmen found. Tariff protection and other forms of favoritism under the “Permit Raj” fostered inefficiency:

Granting [particular firms] special favours in the form of especially advantageous loans, guaranteed markets, refusal of licenses to competitors, enforcing or even permitting private price-fixing and market-sharing agreements simply encourages inefficiency and wastes scarce resources. If private industry is granted special favours by the government, it is certainly inevitable that its use of these favours will be controlled; but this does not offset the harm done by the favours; it merely introduces new sources of rigidity and inefficiency.

Friedman also argued that India was overrelying on the public sector, a strategy that was proving unsuccessful in the postwar European countries that tried it. Because India’s government had enough to do without taking on private-sector tasks, “It seems the better part of wisdom therefore to avoid any activities that can be left to others.”

LIBERALIZATION

The critique of Indian planning by Shenoy, Friedman, and Bauer naturally received a cold reception among the predominantly socialist senior Indian economists, and among the younger economists trained abroad in the techniques of development planning. Eventually, however, it became impossible for the younger economists to ignore the fact that the results of planning were bearing out the Shenoy-Friedman-Bauer analysis. Jagdish Bhagwati was one of the first among the younger group to reconsider the

wisdom of the Indian planning effort. Although he was somewhat dismissive toward the three critics' style of argument, the evidence compelled him to accept their central policy conclusions.

Bhagwati sought to make a nuanced case for free trade, removal of licensing restrictions, and other promarket reforms, without what he regarded as the baggage of laissez-faire ideology. In 1969, reviewing a collection of Shenoy's newspaper and magazine pieces for an academic journal, Bhagwati deplored "the strong ideology of the Friedmannite [*sic*] variety, which prompts and mars much of his writing on economic policy in India" and declared that Shenoy's "overall view of Indian economic policies is flawed seriously by his antipathy to planning *per se*." He nonetheless gave Shenoy credit for maintaining "intellectual integrity" and for pointing out inefficiencies of the planning system that others had overlooked.⁵⁵ In similar fashion Bhagwati and his wife, Padma Desai, in a 1970 book reviewing Indian economic policy cited Shenoy as a representative of the early critics of the Second Five-Year Plan who in many respects "were right, even though their arguments had not been cogently put."⁵⁶ Bhagwati and T. N. Srinivasan, in a 1975 book urging that India move toward freer trade and freer domestic markets, omitted any reference to Shenoy, Friedman, or Bauer.⁵⁷

Whether despite or because of this difference in approach from the earlier critics of Indian planning, Bhagwati's two coauthored books, according to the economist Deepak Lal, played an important role in persuading Indian economists to rethink their long-held affinity for government direction of the economy. The books "provided a detailed empirical analysis ... documenting the immense inefficiency and corruption that the dirigiste planning system had engendered. This marked the beginning of the end of the planning syndrome that had held Indian economists in thrall for nearly a century."⁵⁸

The first steps toward liberalization of the Indian economy began in the late 1980s under Rajiv Gandhi, Indira's son, who became prime minister after her assassination in 1984. Toward the end of his administration the number of license-controlled industries was reduced, and some price controls were lifted. Later, as opposition leader in early 1991, Rajiv

⁵⁵ Jagdish N. Bhagwati, untitled review, *Economic Journal* 79 (September 1969), pp.635–6.

⁵⁶ Bhagwati and Desai, "Socialism and Indian Economic Policy," p. 117.

⁵⁷ Jagdish Bhagwati and T. N. Srinivasan, *Foreign Trade Regimes and Economic Development: India* (New York: Columbia University Press, 1975).

⁵⁸ Deepak Lal, "India, Economics in," in Steven N. Durlauf and Lawrence E. Blume, eds., *The New Palgrave Dictionary of Economics*, 2nd ed. (London: Macmillan Palgrave, 2008).

Gandhi began to talk of dismantling the Permit Raj more thoroughly. In this thinking he was advised by the economist Subroto Roy, who explicitly drew inspiration from Adam Smith and F. A. Hayek.⁵⁹ Before 1991 was out, in the midst of the election campaign in which he sought to regain office, Rajiv was assassinated.

Rajiv Gandhi's legacy was a Congress Party manifesto calling for liberalization reforms. Reforms became politically possible with Congress's election victory and soon were seen as necessary in the wake of an exchange-rate crisis that year. The new prime minister, Narasimha Rao, advised by Finance Minister Manmohan Singh (the economist who would become prime minister in 2004) and Minister of State in the Ministry of Commerce P. Chidambaram, set about implementing the manifesto. Inevitably, some dubbed the new policy direction "Manmohanomics." The Rao government eliminated most licensing requirements. It widened India's opening to imports and foreign direct investment. Ramesh has commented that it was "only when we had a crisis in the '90s that we made this paradigm shift from an inward-looking economy to an outward-looking economy."⁶⁰ Liberalization continued through 1990s and into the new century.

Liberalization led to faster growth. From 1950 to 1980 India's annual growth rate in real GDP averaged about 3.5 percent, ruefully called the "Hindu rate of growth." (The phrase was coined by the economist Raj Krishna, a play on the phrase "secular rate of growth.") That rate was much below the rates in other Asian countries and meant only about 1.2 percent growth in real per capita income. Since 1990 annual real GDP growth has been upward of 6 percent. Real per capita growth, at above 4 percent, has more than tripled the old rate.

Two of the success stories in India's economy since liberalization have been information technology and the Bollywood film industry. Meghnad Desai has pointed out that neither was favored by government planners. The IT industry "is entirely a self-generated miracle" while Bollywood "is completely neglected by the government, and it is a global success." Desai drew the lesson that the market on its own can direct investment:

Now I think India has learned that you don't need a government to run the economy. You need the government not to interfere with the economy; the economy will run itself.⁶¹

⁵⁹ Subroto Roy, *Pricing, Planning and Politics: A Study of Economic Distortions in India* (London: Institute of Economic Affairs, 1984).

⁶⁰ Ramesh, *Commanding Heights* interview.

⁶¹ Meghnad Desai, *Commanding Heights* interview (7 December 2000), http://www.pbs.org/wgbh/commandingheights/shared/minitextlo/int_meghnaddesai.html.

INDIA'S ONGOING DEBATE

Liberalization of the Indian economy still has some distance to go. Bhagwati in 2005 attributed the slow pace of removing controls to vested interests created by the Permit Raj:

Now that we economists, except for a few “neanderthals” on the intellectual left (aided and abetted by a handful of populist economists such as Dani Rodrik and Joe Stiglitz), are agreed on the need for reforms, our reforming politicians like the Prime Minister [Manmohan Singh] face these institutions and interests which grew up around the old, discredited model. So, they have to walk a minefield to get more and more reforms implemented.⁶²

The economic journalist Swaminathan S. A. Aiyer eloquently made the case that reform had not yet gone far enough in his 1999 essay “Indians Succeed; India Fails.” Aiyer contrasted the high incomes earned by Indians in Silicon Valley and elsewhere in the West with the low level of per capita income in India and wondered “why talented Indians cannot rise in India.” He observed that talented Indians prosper in countries like the United States, where “all people play by the same rules, all have freedom to innovate without being strangled by regulations.” In India, however, they are stymied by “the lack of transparent rules, properly enforced,” together with the “neta-babu raj [politician-bureaucrat regime] brought in by socialist policies,” which “remains intact despite supposed liberalization.” He concluded: “This, then, is why Indians succeed in countries ruled by whites, and fail in their own. It is the saddest story of the century.”⁶³

DEVELOPMENT ECONOMICS

India's Second Five-Year Plan was influential on planning practices throughout the third world. The dominant development *theory* of the 1950s and 1960s, as represented, for example, by Gunnar Myrdal's *Economic Theory and Underdeveloped Regions* (1957), held that underdeveloped countries are stuck in a “trap”: low wages mean low savings, which means low investment, which means few tools for workers, which perpetuates low wages. Paul Samuelson endorsed this underdevelopment-trap idea in the 1951 edition of his influential economics textbook, where he wrote that poor countries “cannot get their heads above water because their production is

⁶² Jagdish Bhagwati with H. D. Vinod, “A Conversation with Jagdish Bhagwati.”

⁶³ Swaminathan S. A. Aiyer, “Indians Succeed; India Fails,” *Times of India*, 26 December 1999.

so low that they can spare nothing for the capital formation by which their standard of living could be raised.”⁶⁴ The underdevelopment-trap idea was based in part on the Harrod-Domar growth model, in which an economy’s growth is limited by its investment volume. Myrdal and others believed that active government planning for increased investment, to be financed by foreign aid, was the key to faster growth in poor countries.

The French economist Edmund Malinvaud has recalled that the application of economic planning to less-developed economies was “supported with enthusiasm” by leading economists in the 1950s and 1960s. The enthusiasm was particularly evident among those, working in the new field of *econometrics*, who viewed economics as a kind of engineering, an applied science for the quantitative prediction and control of the economy. Leontief (1939) and Mahalanobis (1949) were among the earliest honorary fellows elected by the Econometric Society.

Malinvaud recounted a small week-long conference on “the econometric approach to development planning,” organized by the statistician Marcello Boldrini and held in Vatican City in October 1963. The conference brought together Leontief, Mahalanobis, the econometrics pioneer Ragnar Frisch (later corecipient of the first Nobel Memorial Prize in economics), Malinvaud, and fifteen others (including the future Nobelists Maurice Allais, Trygve Haavelmo, Tjalling Koopmans, and Richard Stone) who were known for advances in mathematical economic theory and statistical analysis. Boldrini’s conference agenda began with the declaration that central planning directives are needed for economic development because the invisible hand does *not* work:

Modern economies are extremely complex and both theory and practice show that the free play of individual choice does not guarantee, as used to be thought, favourable results for the community.

Once this is admitted it is obviously necessary to provide suitable informative and control instruments and fix the targets which the economy is aiming at. From these requirements was born econometrics, which uses the statistical and mathematical methods both in the theoretical study of economic phenomena and in the formulation of directives for economic policy and development planning.⁶⁵

⁶⁴ Paul A. Samuelson, *Economics: An Introductory Analysis* (New York: McGraw-Hill, 1951), p. 49. Quoted by Prakash Loungani, review of *The White Man’s Burden* by William Easterly, *Cato Journal* 26 (Spring/Summer 2006), p. 383.

⁶⁵ Quoted by E. Malinvaud, “How Frisch Saw in the 1960s the Contribution of Economists to Development Planning,” in Steinar Strøm, ed., *Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium* (Cambridge: Cambridge

A dissenting note was sounded at the meeting by Allais, a veteran of the first Mont Pelerin Society conference, who “disputed the idea that planning could do any good.”⁶⁶ Today the focus of econometrics is on statistical techniques for the study of economic phenomena, not on techniques for planning the economy. Planners may need econometrics as a tool, but econometricians do not typically view planning as the goal of their work.

The disappointing results of development planning since 1963 make a declaration like Boldrini’s, with its confident assertion of the obvious necessity of planning, strike readers today as evidence of an earlier era’s naïveté or hubris. Reflecting, Malinvaud asked: “What explanation can one give for the errors in judgment that were part of the postwar European intellectual climate and that many, including Frisch, found so painful to recognize?” His answer drew on the history of economic ideas that we have reviewed in earlier chapters, and on the perception by those who favored planning that the Swedish and even Soviet models were success stories:

Keynes had provided a rationale for macroeconomic policies; Beveridge had drawn ambitious projects for the “welfare state” that were widely imitated; the war economy had proved that large productive sectors could be planned; the Swedish socialist model was functioning; the USSR seemed to be performing well, both in launching *Sputnik* and producing sophisticated arms and in apparently quickly raising the standard of living of its populations; and so on. In Western Europe, planners often had the experience of working in the public sector and were aware of “government failures,” but enlightened planning was perceived as the way to remedy those failures. For most European economists the question was not whether or not planning was good, but rather which form of planning was best.⁶⁷

As evidence of the factual misperceptions of the day, Malinvaud quoted a 1962 statement by Ragnar Frisch that the Soviet Union could “let the West continue in its stubborn planlessness. It will then rapidly be lagging behind economically and will in due time fall from the tree like an overripe pear.”⁶⁸

Peter Bauer was the most important dissenter from the underdevelopment-trap theory and the proplanning consensus during their heyday from the 1950s to the 1970s. One of his best-known books was aptly entitled *Dissent on Development*. The view that “planlessness” prevents economic

University Press, 1998), p. 561. The conference proceedings were published as Pontifica Academia Scientiarum, *Study Week on the Econometric Approach to Development Planning, October 7–13, 1963* (Amsterdam: North-Holland, 1965).

⁶⁶ Ibid., p. 564.

⁶⁷ Ibid., pp. 562–3.

⁶⁸ Ibid., p. 564.

development, he pointed out, is inconsistent with two simple facts: (1) Developed countries had moved from historical underdevelopment to present prosperity without government planning the way, and (2) nations in the modern world have advanced more rapidly when they have avoided development planning. In Bauer's view, capital accumulation and modern infrastructure are not preconditions but results that emerge during the development process. Legal and economic institutions matter importantly, with secure property rights and an entrepreneurial environment best for fostering development. Government involvement more often creates structural problems than removes them. The evidence indicated to Bauer that transfers of money from wealthy nations' taxpayers to third-world rulers (he noted that to call such transfers "aid" is to prejudge whether they actually help) have made life more comfortable for third-world rulers, but not for their citizens.

PETER BAUER

Peter Thomas Bauer (1915–2002) was born in Budapest. He studied economics at Cambridge University in the 1930s, speaking little English when he arrived but graduating with distinction. He attended lectures by Keynes and was tutored for a year by Joan Robinson. The prevailing views at the university were socialist and highly respectful of the Soviet Union, he later told an interviewer, but he migrated on his own to a pro-market view through "reflection and observation."⁶⁹ Bauer's noteworthy books include *West African Trade* (1954), *Indian Economic Policy and Development* (1961), and *Dissent on Development* (1971). He became professor of economics at the London School of Economics from 1960 to his retirement in 1983. Bauer was a member of the Mont Pelerin Society. In 2002 he was announced as the first recipient of the Cato Institute's annual Milton Friedman Prize for Advancing Liberty but died just a week before the award ceremony. Bauer once summarized his research findings in two short sentences:

Economic achievement depends primarily on people's abilities and attitudes and also on their social and political institutions. Differences in these determinants or factors largely explain differences in levels of economic achievement and rates of material progress.⁷⁰

⁶⁹ "A Conversation with Peter Bauer," in John Blundell, et al., *A Tribute to Peter Bauer* (London: Institute of Economic Affairs, 2002), pp. 21–3.

⁷⁰ Bauer, *Dissent on Development* (Cambridge, MA: Harvard University Press, 1976), p. 75.

THE CURRENT DEBATE OVER DEVELOPMENT

Echoes of Bauer's clash with his contemporaries can be heard in recent debates among development economists over the (in)effectiveness of Western governmental transfers to, and the appropriate domestic policies for, the governments of the world's poorer economies. Two leading disputants are Jeffrey Sachs of Columbia University and William Easterly of New York University. Sachs is the author of *The End of Poverty: Economic Possibilities for Our Time* (2005), which calls for a major expansion of transfers from rich to poor nations. Sachs has echoed the underdevelopment-trap theory, at least as applied to sub-Saharan Africa, writing that "most of tropical Africa is in a poverty trap or barely emerging from one . . . The farm households have little or no cash income, leaving them without the means to invest in farm improvements."⁷¹ Easterly is author of *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good* (2006). Easterly's work in effect updates Bauer, finding empirically that resource transfers and planning efforts have been sadly ineffective or worse. In an op-ed piece comparing the policy advice offered in 2007 with the advice offered fifty years earlier, Easterly wrote: "Economists involved in Africa then and now undervalued free markets, instead coming up with one of the worst ideas ever: state direction by the states least able to direct."⁷²

WHY DO SOME COUNTRIES REMAIN RICHER THAN OTHERS?

Economists' advice about how to promote economic growth has naturally stemmed from their theories about what determines the rate of growth. Robert Solow in the 1950s offered an influential mathematical growth model, building on the earlier Harrod-Domar model. In the Solow model, a national economy's income per worker will rise if it accumulates more capital or improves its technology. An economy accumulates capital through saving, so cross-country differences in capital accumulation are due to past differences in saving rates. The level of technology is a given, determined outside the model.

The Solow model predicts *convergence* in income levels across countries, because savings – wherever they originate – will flow to those areas where

⁷¹ Jeffrey D. Sachs, "Breaking the Poverty Trap," *Scientific American* (August 2007), available online at <http://www.scientificamerican.com/article.cfm?id=breaking-the-poverty-trap-extended>.

⁷² William R. Easterly, "Africa's Poverty Trap," *Wall Street Journal* (23 March 2007), p. A.11.

tools are scarcest, and where therefore providing more tools pays the highest returns. Capital-rich countries will build factories in capital-poor countries to take advantage of the relatively low wages (and higher returns to investment) there, but in so doing they will bid up wage rates (and bid down returns to capital), thereby equalizing incomes across countries. When appliers of the Solow model found that real-world capitalists appear less eager to invest in poor countries than predicted, many attributed this reluctance to lack of suitable infrastructure (roads, irrigation, power grids). They took it for granted that such infrastructure must be built by government and thereby provided a rationale for government-to-government transfers to finance the needed infrastructure projects.

Although China and India are now beginning to catch up to wealthier countries, convergence as a general pattern has been notable by its absence. The task of explaining nonconvergence has inspired new work on growth theory led by Stanford University's Paul Romer and the University of Chicago's Robert Lucas. Romer's work examines what determines the level of technology, rather than following Solow in treating technology as given. It proposes that levels of investment in education and research and development (R&D) govern the speed at which technology improves. Some countries can stay ahead of the pack – the model predicts *nonconvergence* in per capita income levels – if they invest more heavily in education and R&D.⁷³ The new models have been used to provide a new rationale for aid transfers: aid is needed to finance the educational and R&D investments without which poor economies cannot catch up.

An alternative outlook has arisen in recent years, in the spirit of Adam Smith and Peter Bauer rather than of Leontief or Solow or Romer, proposing that economic growth depends more on developing suitable institutions for fostering enterprise than on funneling enough resources into infrastructure or education. The economic historian Douglass North, corecipient of the 1993 economics Nobel Prize, has been a leader in developing this new emphasis. By *institutions* North means “the rules of the game in a society,” most importantly property rights, that “structure incentives in human exchange, whether political, social, or economic.” In accounting for *The Rise of the Western World*, North and his coauthor Robert Thomas have argued that “the factors we have listed (innovation, economies of scale,

⁷³ For a lively account of the development of the new “endogenous” or “increasing returns” growth theory, see David Warsh, *Knowledge and the Wealth of Nations* (New York: W. W. Norton, 2006). For Romer's own brief summary see Paul Romer, “Economic Growth,” in David R. Henderson, ed., *The Concise Encyclopedia of Economics* (Indianapolis: Liberty Fund, 2008), pp. 128–31. In fall 2011 Romer moved from Stanford to New York University.

education, capital accumulation etc.) are not causes of growth; they *are* growth.”⁷⁴ Growth differences between economies are fundamentally due to contrasting property rights systems. Secure and private property rights in the means of production, in the context of economic growth just as in the context of the socialist calculation debate, underpin the market system that provides signals and incentives to guide producers to make appropriate economic decisions.

In important work building on North and Thomas, the economists Daron Acemoglu, Simon Johnson, and James A. Robinson have found that cross-country comparisons over the last 500 years support the proposition that “a cluster of institutions securing private property rights for a broad cross section of society, which we refer to as *institutions of private property*, are essential for investment incentives and successful economic performance.”⁷⁵ The same authors have elsewhere elaborated the central idea:

Economic institutions are important because they influence the structure of economic incentives in society. Without property rights, individuals will not have the incentive to invest in physical or human capital or adopt more efficient technologies.

They noted that even though this insight has long been familiar to economists (they cited John Locke and Adam Smith), much work remains to be done to explain why some countries today enjoy growth-facilitating institutions and others do not: “we are far from a useful framework for thinking about how economic institutions are determined and why they vary across countries.”⁷⁶ Economists pursuing this line of research thus face the challenge of disentangling the cultural, legal, political, and other influences that account for the development of institutions like private property rights and markets. The agenda for policy makers or constitution makers is to consider what (beyond the obvious) can be done, given the status quo in a country today, to foster rather than damage the institutions that facilitate growth.

⁷⁴ Douglass C. North, *Institutions, Institutional Change, and Economic Performance* (New York: Cambridge University Press, 1990), p. 3; Douglass C. North and Paul Thomas, *The Rise of the Western World: A New Economic History* (Cambridge: Cambridge University Press, 1973), p. 2. Both statements are quoted by Daron Acemoglu, Simon Johnson, and James A. Robinson, “Institutions as the Fundamental Cause of Long-Run Growth,” in Philippe Aghion and Steve Durlauf, eds., *Handbook of Economic Growth*, vol. 1A (Amsterdam: North-Holland, 2005), p. 389.

⁷⁵ Daron Acemoglu, Simon Johnson, and James A. Robinson, “Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution,” *Quarterly Journal of Economics* 117 (November 2002), p. 1235.

⁷⁶ Acemoglu, Johnson, and Robinson, “Institutions,” p. 389.

The Peruvian author Hernando De Soto has influentially argued that insecure property rights are a key reason for low levels of capital accumulation and productivity in less-developed countries. A shantytown squatter, who cannot acquire a legal deed to his plot of land, will understandably not invest in replacing his shanty with a more permanent structure.⁷⁷

Economic researchers have in recent years worked at quantifying the degree to which a country's economic institutions are market-friendly, producing annual indexes of economic freedom.⁷⁸ Statistical analysis of the relations between countries' economic freedom scores and their respective levels of income indicates that freer market institutions promote greater prosperity. The simple contrast between West and East Germany, or South Korea and North Korea, illustrates the point. The general pattern is clear: countries with more secure private property rights and less hampered market systems have grown richer than those with greater economic restrictions.⁷⁹ The pattern would not surprise Adam Smith, who wrote (as previously quoted in [Chapter 8](#)) that "little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism but peace, easy taxes, and a tolerable administration of justice: all the rest being brought about by the natural course of things."⁸⁰

⁷⁷ Hernando de Soto, *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (New York: Basic Books, 2000).

⁷⁸ James D. Gwartney, Joshua C. Hall, and Robert Lawson, *Economic Freedom of the World: 2010 Annual Report* (Vancouver: Fraser Institute, 2010); Terry Miller and Kim R. Holmes, *2011 Index of Economic Freedom* (Washington, DC: Heritage Foundation, and New York: Dow Jones and Company, 2011).

⁷⁹ Gerald O'Driscoll and Lee Hoskins, "Property Rights the Key to Economic Development," *Cato Institute Policy Analysis* 482 (7 August 2003), <http://www.cato.org/pubs/pas/pa482.pdf>; Robert Lawson, "Economic Freedom" in Henderson, *The Concise Encyclopedia of Economics*, pp. 124–7. At unification in 1991, West Germany's level of per capita real income was about three times that of East Germany. As O'Driscoll and Hoskins noted, South Koreans have achieved per capita incomes seventeen times greater than those of North Koreans.

⁸⁰ As quoted by Dugald Stewart, "Account of the Life and Writings of Adam Smith, LL.D." [1793], ed. I. S. Ross, in Adam Smith, *Essays on Philosophical Subjects*, ed. W. P. D. Wightman and J. C. Bryce (Indianapolis: Liberty Fund, 1982), p. 322.

Bretton Woods and International Monetary Thought

At 3:00 p.m. on 6 July 1944, John Maynard Keynes joined Harry Dexter White for White's daily press briefing at the Hotel Washington in Bretton Woods, New Hampshire. The grand old hotel was the site of a forty-four-nation conference that was cobbling together a framework for the postwar international monetary system. Keynes had gone to Bretton Woods as chairman of the British government's delegation. White headed the U.S. delegation. The assembled reporters were especially eager to hear Keynes, who was still an economic-policy rock star, world renowned and intellectually vigorous, although physically worn at age sixty-one. Having been granted a peerage in 1942, he was now Lord Keynes.

Before the First World War, under an international gold standard and a largely liberal trade regime, global commerce and investment had flourished. The 1920s and 1930s, by contrast, were chaotic. Adherence to the gold standard was spotty. National governments adopted mercantilist restrictions on trade and payments, triggering retaliations. Some economists called for ending the monetary chaos by restoring the classical gold standard¹ – but not Keynes. As early as his *Tract on Monetary Reform* (1924) he had famously written that “the gold standard is already a barbarous relic.”² In

¹ Important statements in favor of restoring the classical gold standard were made during the 1930s and 1940s by Ludwig von Mises, *The Theory of Money and Credit*, trans. H. E. Batson, 2nd ed. (London: Jonathan Cape, 1934); F. A. Hayek, *Monetary Nationalism and International Stability* (London: Longmans, 1937); Michael Heilperin, *International Monetary Economics* (London: Longmans, 1939); and Jacques Rueff, *L'Ordre Social*, 2 vols. (Paris: Librairie du Recueil Sirey, 1945).

² John Maynard Keynes, *A Tract on Monetary Reform* (London: Macmillan, 1924), p. 187. Keynes's famous phrase was anticipated by an American populist, Marion Cannon, who in 1891 had denounced the gold standard as a “relic of barbarism,” as quoted in Charles Postel, *The Populist Vision* (Oxford: Oxford University Press, 2007), p. 152. The well-known economist Edwin Cannan, who supported a gold standard that would allow for modern banknotes, had written in 1898 of “that relic of barbarism, a metallic currency

place of the gold standard Keynes favored a fiat standard “so regulated as to maintain stability in an index number of prices.”³ In contrast to Hayek and others who viewed the gold standard as an evolved constitutional system that usefully constrained monetary policy, Keynes at the Bretton Woods press briefing likened it to an unconstrained dictator. The gold standard, he told the reporters, should not again exercise “tyrannical powers over the world.” The work of the conference was to limit gold to the role of “a monarch subject to constitutional limitations.”⁴

THE CONFERENCE AT BRETTON WOODS

At the time of the Bretton Woods conference, the Allied nations of Europe (and especially Great Britain) found themselves heavily indebted with little gold in their treasuries or central banks. They sought a new institutional framework that would allow them to resume international payments with less gold. The Bretton Woods Agreement committed the major European currencies to redeemability not for gold but only for U.S. dollars, with the U.S. dollar as the key international reserve currency that other central banks could redeem for gold. (U.S. citizens continued to be barred, under depression-era rules, from redeeming Federal Reserve notes or even owning monetary gold.) Exchange rates against the dollar were to be pegged, that is, fixed for the time being but adjustable when necessary. The agreement established an unprecedented multinational organization – the International Monetary Fund – to oversee the system.

The Bretton Woods conferees were much influenced by Keynes’s views on the benefits of a system that, by contrast to the classical gold standard, would loosen constraints on national monetary and fiscal policies. Many were also wowed by his personality. One American participant at the conference, the Federal Reserve System research director E. A. Goldenweiser, reminisced:

[T]he outstanding personality at Bretton Woods was Lord Keynes. He shone in two respects – in the fact that he is, of course, one of the brightest lights of

for large sums.” Cannan, “Review [of Lord Farber, *The Quantitative Theory of Money and Prices*],” *Economic Journal* 8 (March 1898), p. 83.

³ On Keynes’s case for price-level stabilization and its contrast to Hayek’s view, see George Selgin, “Hayek versus Keynes on How the Price Level Should Behave,” *History of Political Economy* 31 (Winter 1999), pp. 699–721.

⁴ Quoted by Armand van Dormael, *Bretton Woods: Birth of a Monetary System* (London: Macmillan, 1978), pp. 184–5. Relevant portions of the Dormael book are available online at <http://replay.waybackmachine.org/20080517140002/> <http://www.imfsite.org/origins/confer2.html>.

mankind in both thinking and expression and in his ability to influence people, and he shone also by being the world's worst chairman.⁵

Keynes chaired Commission II, the committee at Bretton Woods that worked on framing articles for the International Bank for Reconstruction and Development, an institution that later became the World Bank. The acting U.S. secretary of state, Dean Acheson, offered more detail on how Keynes conducted business as chairman:

Keynes ... knows this thing inside out so that when anybody says Section 15-C he knows what that is, but before you have an opportunity to turn to Section 15-C and see what he is talking about, he says, "I hear no objection to that," and it is passed.⁶

Harry Dexter White, leader of the U.S. delegation and assistant secretary of the Roosevelt administration's Treasury Department, chaired Commission I. White's committee framed the articles for the International Monetary Fund, the crucial institution for reconstructing the world's exchange-rate and payments regime. It was White who, in order to lay the groundwork for public and congressional acceptance of the conference's work, organized (and normally conducted alone) the daily press briefings – every afternoon at 3:00 p.m. – at which Keynes appeared on July 6.

The framework that emerged from Bretton Woods provided more leeway (again, by contrast with the classical gold standard) for Keynesian monetary and fiscal policies. Central banks would be freer to expand as they wished and treasuries would be freer to run budget deficits. The framework did not match, however, Keynes's own specific blueprint for international monetary reform. Rather than give gold or a gold-redeemable U.S. dollar the role of settling trade balances, Keynes had wanted to fix national currency exchange rates to a new global fiat reserve currency, dubbed "bancor," which would serve as an international settlement medium on books administered by an International Clearing Union. His proposal did not appeal to White or the rest of the United States delegation, and (the U.S. delegates said) would certainly not appeal to the U.S. Congress, which would need to ratify it.

During the war the U.S. government had become a major creditor to its European allies. How the British delegation felt about Americans' use of their resulting leverage to dominate postwar monetary negotiations was

⁵ Quoted by van Dormael, *Bretton Woods*, p. 174.

⁶ Quoted by James Buchan, <http://www.newstatesman.com/economy/2008/11/bretton-woods-keynes-british>.

reflected in a piece of verse reportedly popular among British officials in the postwar years:

In Washington Lord Halifax
Once whispered to Lord Keynes,
"It's true they have the money-bags,
But *we* have all the brains."⁷

Lord Halifax was the British ambassador to the United States, 1941–6.

Less than two weeks after the July 6 press briefing, on July 19, the over-worked Keynes collapsed on the stairs of the Hotel Washington, the victim of a minor heart attack. Three days later he had rallied enough to give an upbeat closing address to the Bretton Woods conference. Twenty-one months later, in April 1946, another heart attack killed him. Harry Dexter White died in August 1948, the victim of two heart attacks in rapid succession, a few days after testifying before a congressional committee in response to allegations that he had passed American state secrets to agents of the Soviet Union.⁸ The exchange rate system set up at Bretton Woods, after limping from crisis to crisis for twenty-some years, died in 1971, the victim of the loose American monetary policies of the 1960s and of its own inner contradictions. The International Monetary Fund, despite losing its original purpose with the end of the Bretton Woods system, lives on.

HOW AN INTERNATIONAL GOLD OR SILVER STANDARD WORKED

Today's clash of economic ideas on fixed versus floating exchange rates, and more broadly on government policy toward the international payments system, follows earlier centuries' debates on the working of a gold or silver standard. The classical economists and most of the neoclassical economists up to World War One accepted the theory, built on the work of David Hume and Adam Smith, that the gold standard automatically regulates a nation's or a region's money stock, including its specie-redeemable bank-issued money. Hume and Smith rejected the mercantilist doctrine that a nation's

⁷ Richard N. Gardner, *Sterling-Dollar Diplomacy in Current Perspective* (New York: Columbia University Press, 1980), p. xiii, attributes this anonymous verse to a piece of paper found among the effects of a U.S.-UK conference session preparatory to Bretton Woods.

⁸ A 1997 congressional panel found the evidence against White damning: "The complicity of Alger Hiss of the State Department seems settled. As does that of Harry Dexter White of the Treasury Department." <http://origin.www.gpo.gov/congress/commissions/secrecy/pdf/12hist1.pdf>. White's motives for passing secrets to the Soviets are not clear.

prosperity is measured by the stock of gold and silver coins (or “specie”) in its vaults, and that to enhance its prosperity its policy makers should use restrictions and bounties to increase that stock. One of Hume’s and Smith’s prominent followers, the English classical economist Nassau Senior, in an 1827 lecture ridiculed “that extraordinary monument of human absurdity, the Mercantile Theory, – or, in other words, the opinion that wealth consists of gold and silver, and may be indefinitely increased by forcing their importation, and preventing their exportation: a theory which has occasioned, and still occasions, more vice, misery, and war, than all other errors put together.”⁹

Mercantilists worried that, in the absence of state controls, too much of a nation’s specie would drain abroad. For a nation to attract and keep enough specie the king would have to encourage exports (which bring in specie payments) but discourage imports or even ban the shipment of specie overseas to pay for them. The tinge of mercantilist thinking remains in the common label according to which an excess of exports over imports is a “positive” balance of trade. Hume refuted the mercantilist monetary doctrine in the essay “Of the Balance of Trade” in his *Political Discourses* (1752) by identifying how market prices and specie flows regulate the quantity of money appropriately without any need for the king to get involved. His theory of the self-regulating process has become known as “the price-specie-flow mechanism.”

Hume offered a clever thought experiment. Suppose that everyone in England wakes up one morning to find that half of the silver coins he or she had yesterday have vaporized. Having now less cash at hand than desired, everyone is less eager to spend and more eager to sell. Goods go unsold at yesterday’s prices. English sellers must begin to lower their prices, while prices on the continent of Europe remain unchanged. As a result, the English reduce their imports of the now relatively expensive continental goods and increase their exports to the Continent. Silver flows into England to pay for the Continent’s increased net purchases. The inflow of silver continues until the English stock of silver coin is replenished, and English prices return to parity with those of the Continent. Conversely, an imagined doubling of coins creates pressure on local prices to rise relative to prices outside the region, making specie flow out of the region, until the upward pressure on local prices is relieved. At that point equilibrium is reestablished and the outflow stops.

⁹ Nassau W. Senior, *Three Lectures on the Transmission of the Precious Metals from Country to Country, and the Mercantile Theory of Wealth* (London: John Murray, 1828), p. 35.

Nassau Senior later summarized Hume's lesson:

A universal balance against any country must soon so exhaust her stock of the precious metals, and consequently lower her prices, as to diminish and gradually destroy her motives for purchasing foreign commodities, while it increased the motives of all other countries to purchase hers. To suppose that it is possible to go on for ever buying without selling, or selling without buying, or even buying more than you sell, or selling more than you buy, are all equally irrational.¹⁰

Thus the mercantilists were wrong: the king does not need to impose legal restrictions to prevent trade from draining the nation of silver or gold. Outflows and inflows of specie are equilibrating and self-limiting: they stop once people are holding the value of specie they want to hold. An outflow is both the symptom of, and the corrective for, an excess stock of money and a relatively high domestic price level. Each ounce of specie exported reduces the domestic money supply, relieves the excess supply, and lessens the support for the high price level. The distribution of silver and gold among countries (and within countries) is a self-regulating order.

Full-bodied coins were not the only money of Hume's day. Bank-issued paper currency notes and checkable account balances, both redeemable in silver or gold, were the most commonly used type of money for domestic transactions in England and Scotland. Adam Smith restated Hume's price-specie-flow theory in his own *Lectures on Jurisprudence*.¹¹ In the *Lectures* and again in *The Wealth of Nations* (book II, chapter 2), Smith extended the analysis to the case of a currency consisting of specie plus redeemable paper currency notes issued by competing commercial banks. Smith concluded that the quantity of mixed currency is also self-regulating when a country participates in an international specie standard, because any excess notes would be redeemed for specie, and that specie would flow out of the country. An economy with a given volume of annual produce, he proposed, requires only a certain amount of money to circulate that produce. If the banks issue any greater amount of notes, the "channel of circulation ... must overflow" with the excess. The excess "cannot be employed at home," so it goes abroad in purchases of goods and services. Smith's analysis here was a bit sketchy and, as Henry Thornton noted in his celebrated 1802 work on monetary theory, failed to mention the "price" part of Hume's price-specie-flow mechanism.¹²

¹⁰ Ibid., pp. 17–18.

¹¹ Adam Smith, *Lectures on Jurisprudence*, ed. R. L. Meek, D. D. Raphael, and P. G. Stein (Indianapolis: Liberty Fund, 1982), p. 507.

¹² Henry Thornton, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* [1802], ed. F. A. Hayek (London: George Allen and Unwin, 1939), pp. 100, 200–8.

The introduction of banknotes enhanced the nation's wealth, Smith argued, precisely because they displaced specie, and "the greater part" of the gold and silver sent abroad was "almost unavoidable[y]" used to "purchase an additional stock of materials, tools, and provisions" that was "destined for the employment of industry."¹³ Banknotes thus enabled the nation to exchange much of its "dead stock" of gold and silver for productive capital goods.

Defenders of competitive note issue in Britain, particularly the members of the free banking school, who opposed monopoly privileges for the Bank of England in the debates of the 1830s and 1840s, followed in Smith's footsteps. They amplified his policy position favoring free competition in banking by spelling out how free competition in note issue implied that any overissuing bank would quickly lose reserves to its rival banks. Competition would restrain any overissue more effectively than monopoly in note issue by a central bank.¹⁴

Free banking was little discussed after the Bank of England's charter was renewed in 1844, but most economists continued to accept the Humean-Smithian theory of monetary self-regulation under a gold standard. Bonamy Price, professor of political economy at Oxford, in an 1869 lecture lauded "Adam Smith's refutation of the Mercantile Theory" as "reasoning of the most powerful order," to which writers in the financial press should attend. He affirmed the self-regulation of the currency as follows:

The quantity of banknotes in circulation is subject to the same rule as that which governs the quantity of coin. It is regulated by the demand of the public; and that demand is determined by the quantity which the public can find use for – the quantity which is actually employed in making purchases and payments, including the reserves of bankers.... Every attempt

Thornton was a close friend of the member of Parliament and antislavery reformer William Wilberforce, and his character appears in the 2006 film about Wilberforce, *Amazing Grace*. On Smith's monetary and banking theory see also David Laidler, "Adam Smith as a Monetary Theorist," *Canadian Journal of Economics* 14 (May 1981), pp. 185–200; James A. Gherity, "The Evolution of Adam Smith's Theory of Banking," *History of Political Economy* 26 (Fall 1994), pp. 423–41; and Nicholas A. Curott, "The Balance of Payments and Monetary Neutrality in Adam Smith's *Wealth of Nations*," working paper, George Mason University, March 2011. Smith failed to explain why the excess money would not or could not initially be spent domestically, bidding up domestic prices, in the manner Hume spelled out. Smith skipped the Humean equilibrating process and went straight to the long-run result.

¹³ Smith, *Wealth of Nations*, pp. 293–5.

¹⁴ For details see Lawrence H. White, *Free Banking in Britain*, 2nd ed. (London: Institute of Economic Affairs, 1995), available for download in pdf format at <http://www.iea.org.uk/record.jsp?ID=115&type=book>.

to put more into circulation will be rendered abortive by the public immediately sending back the excess to the bank for payment.... [S]overeigns [gold coins] and banknotes are commodities.... [T]he sole point of importance, as for all goods, is the goodness of their quality – that the sovereign is made of pure metal and has full weight, and that the banknote will be paid on demand.¹⁵

While emphasizing the immediate redemption of excess notes, Price neglected the free banking school's argument that the redemption process works *immediately* only when an issuer is surrounded by competitors. In Price's statement it seems that even the Bank of England with its note-issue monopoly was barred from issuing excess banknotes even in the short run.

The chief amendment that later writers added to the Hume-Smith theory was to add financial flows of gold to the adjustment story. Gold will flow from an area with low interest rates into an area with higher interest rates as suppliers of funds seek higher returns. An excess regional supply of money will drive out gold not only by the Humean route of raising regional commodity prices as people spend their excess balances, but also by lowering regional interest rates as people *lend* excess money balances. An excess demand for money, conversely, will attract gold through low prices and high interest rates.

The automatically equilibrating character of the national money supply under an international gold standard was the foundation for the generally favorable view of the system's working held by most economists and by the average citizen before the First World War. A second point in the gold standard's favor was the constraint that it placed on government spending: when government bonds must be repaid in gold, and not in something the government can print more of, government spending is limited to what can be covered by current and future taxes.¹⁶ The great historian of economic thought Joseph Schumpeter summarized the orthodox view and explained why it had fallen out of favor after the war, by reference to classical liberal political ideology and its abandonment:

An "automatic" gold currency is part and parcel of a laissez-faire and free trade economy. It links every nation's money rates and price levels with the money-rates and price levels of all the other nations that are "on gold." It is extremely sensitive to government expenditure ... and, in general, to precisely all those policies that violate the principles of economic liberalism. This

¹⁵ Bonamy Price, *The Principles of Currency: Six Lectures Delivered at Oxford* [1869], reprinted in Lawrence H. White, ed., *The History of Gold and Silver*, vol. 3 (London: Pickering & Chatto, 2000), pp. 214–16.

¹⁶ We return to this point in [Chapter 15](#).

is the reason why gold is so unpopular now and also why it was so popular in a bourgeois era. It imposes restrictions on governments or bureaucracies.¹⁷

Once central banks – beginning gradually with the Bank of England in the 1830s – became self-consciously important players on the scene, however, the gold standard no longer operated so automatically. Once central bankers realized that they could speed up, slow down, or even reverse the nation's gold flows, the actual flows became contingent on central bank policy. As the free banking school writers were the first to perceive in the 1830s, the volume of redeemable money no longer regulated itself so automatically with a national monopoly in currency issue and gold holding.

Once the British debate over whether to ratify the Bank of England's evolved status as a central bank was legislatively settled in 1844, discussion focused on the bank's choice of a lending rate (or discount rate for securities purchases). Through its rate policy the bank could, intentionally or otherwise, impede the Humean adjustments called for by changes in gold supply or demand. For example, it could impede an incipient gold outflow from lowering a high domestic money stock and price level to the world level by raising interest rates to attract an offsetting financial inflow of gold from other countries. In the City of London, an aphorism (often attributed to Walter Bagehot) held that a rate of 5 percent would draw gold from the Continent while a rate of 7 percent would draw gold from the moon. The bank could conversely impede an inflow of gold from raising domestic prices to the world level by "sterilizing" the inflow, that is, absorbing it into its inventory while preventing it from increasing the domestic money stock, or by lowering its lending rate to generate offsetting financial outflows, and thereby delay adjustment.

THE GLOBAL QUANTITY AND VALUE OF MONEY UNDER A GOLD OR SILVER STANDARD

Any single nation could gain more gold or silver through international payments, but the world as a whole obviously could not. The behavior of the worldwide quantity of the monetary gold or silver was also a matter for economic analysis and debate. Nassau Senior (1790–1864), the first professor of political economy at Oxford, developed a straightforward supply and demand analysis of precious metallic money in his *Three Lectures on the Value of Money*, published in 1840 but based on lectures delivered at Oxford in 1829.

¹⁷ Joseph Schumpeter, *The History of Economic Analysis* (New York: Oxford University Press, 1954), 1954, pp. 405–6.

Senior began his first lecture by pointing out a contradiction in James Mill's *Principles of Political Economy*. On the one hand, Mill (following Adam Smith and David Ricardo) taught that the relative price of any commodity was determined by its relative cost of production. On the other hand, Mill proposed that the relative price (or purchasing power) of metallic money was determined by the ratio of total money spending to the total volume of goods, with nary a word about money's cost of production.¹⁸ To be consistent, Senior pointed out, Mill should have proposed that the equilibrium purchasing power of an ounce of precious metal used as money equals its marginal cost of production, that is, its cost at "the least fertile mine ... that can be worked without loss."¹⁹ The quantity of metallic money (coins and bullion) in existence should not be regarded as simply given by nature, but as something determined by the forces of supply and demand, like the quantity of any other commodity produced by human effort.

Senior explained that the total quantity of monetary gold in the world will adapt itself (through mining and minting) to the total quantity demanded, which is the sum of the amounts that individual money users wish to hold. He viewed the quantity that an individual typically wishes to hold as the equivalent of so many weeks worth of income, that is, the mathematical product of his income times his desired ratio of money balances to income ("the average proportion of the value of his income which each individual habitually keeps by him in money"). Senior then discussed various factors that influence the desired ratio. The stock of all gold held above ground will in equilibrium equal the quantity demanded for monetary use *plus* the quantity demanded for nonmonetary use or "plate," exemplified by ornamental gold-plated candlesticks.

To analyze the determination of the relative price of gold by the cost of production under simple conditions, Senior asked his audience to imagine an isolated community that uses gold as money and as plate. There gold "is obtained by washing alluvial deposits without any expensive machinery or skill," so that labor time is the only cost of production. Assuming constant returns to scale, the amount of gold obtained is "always in the ratio to the labour employed." Because any amount of gold can be obtained at constant cost – in other words, because the supply curve is perfectly flat – the long-run relative price of gold is the same whatever the level of demand. (There

¹⁸ Mill was applying the "quantity theory" to a commodity money. The appropriate application of the quantity theory, to a *noncommodity* money, will be discussed in the next chapter.

¹⁹ Nassau W. Senior, *Three Lectures on the Value of Money* (London: B. Fellowes, 1840), p. 9.

can be short-run variations in relative price following sudden variations in demand, because it takes time for the quantity to adjust so as to restore the usual price.) An ounce of gold will trade for the number of labor-hours needed to produce an ounce of gold, short-run variations aside, and will trade for other commodities in proportion to the labor-hours needed for their production:

The cost of producing gold would, under these circumstances, always remain the same, and its value in labour, or, in other words, the amount of labour which a certain quantity of it could purchase, would always correspond with its cost of production, except for short intervals, when any sudden increase or diminution in the demand for it should occasion the existing supply to be for a time relatively excessive or deficient. Under such circumstances the value of all other things would be estimated by comparing their cost of production with that of gold.²⁰

It follows that the prices of goods, reckoned in gold units, would be twice as high if gold panning yielded double the amount of gold in a day:

It is obvious that twice as much money would be required to effect every exchange, if a day's labour could obtain from the washing places 34 grains of gold, as would be necessary if a day's labour could obtain only 17.

Senior defined the conditions for the system's maintaining an equilibrium, that is, an equality between the actual and the desired stock of gold, then analyzed the system's return to equilibrium following a supply or demand shift that upset an initial equilibrium. The conditions for equilibrium involve both stocks (so many ounces of gold desired and held at a point in time) and flows (so many new ounces desired and produced per year). With the community's population and income and tastes constant, the only source of new demand is wear and tear on the existing stocks of money and plate. An ongoing equilibrium requires that flow of new gold production is only just enough to replace the wear and tear on the existing stock of money and plate.

A demand or supply shift moves the value of gold away from its long-run equilibrium, but it subsequently returns as flows and stocks respond. Here is Senior's analysis of an increase in the demand for nonmonetary gold in a predominantly Protestant country:

Suppose now a change of fashion to occasion a sudden demand for an increased quantity of plate: the introduction, for instance, of the Roman Catholic forms of worship, and a belief in the meritoriousness of adorning

²⁰ *Ibid.*, p. 18.

every altar with golden candlesticks.²¹ That demand would be supplied, partly by melting and converting into candlesticks some of the existing plate, and some of the existing money, and partly by employing on plate all the current supply of gold, a part of which would otherwise have been used as money. The whole quantity of money being diminished, the average quantity possessed by each family must be diminished. A less portion would be offered on every purchase, all prices (except that of plate) would fall, and the monied incomes of all persons, except the gatherers of gold, would be diminished. This of course would occasion much more labour to be employed in gathering gold until the former amount of money were replaced.

In other words, an increased demand for gold plate temporarily raises the purchasing power of an ounce of gold, until the higher purchasing power, by raising the returns to gold gathering, calls forth an increase in the volume of gold sufficient to push gold's purchasing power back down to the long-run level set by the labor cost of production. During the interval, the higher purchasing power per ounce of gold reduces the number of ounces demanded for monetary use and so releases some monetary gold for use as plate. In the reverse case of a reduced demand for plate, the surplus of gold at the initial value would depress gold's value and diminish new production, in the meantime increasing the number of ounces demanded for monetary use, until eventually the excess would be worked off by wear and tear, raising the value per ounce back to normal. Similar sequences would follow an increase or decrease in the demand for monetary gold.

These results illustrated how in the long run a gold standard stabilizes the purchasing power of money (or its inverse, the price level) in the face of demand shifts, a feature that has naturally been emphasized through the years by proponents of the gold standard. A metallic standard anchors the price level. The stabilizing effect does not depend on the classical labor theory of value that Senior assumed. It survives translation into modern price theory.

Senior offered his isolated community as a microcosm of the world and in this way argued that the quantity and purchasing power of metallic

²¹ As this droll example suggests, Senior was no fan of Catholic liturgy. He was a devout Protestant and a vicar's son. He was, however, a leading advocate of fair treatment for Catholics in Ireland, a country then unpopularity ruled by British Protestants. Senior published controversial tracts advocating that for the sake of fairness and peace much of the property of the established Episcopalian Church, the Church of Ireland, and much of its tax-funded government stipend, should be transferred to the Roman Catholic Church, because far more Irish taxpayers attended the latter. He was apparently forced to resign his chair at Kings College London in 1831 as a result of these publications. See Marion Bowley, *Nassau Senior and Classical Economics* (London: Routledge, 2003 [first published 1937]), pp. 22, 289.

money in the world as a whole are self-regulating. In the long run the relative price of gold returns to the fundamental level set by its cost of production. In his first example the cost of production was constant, but he went on to consider the more plausible case of rising marginal costs. When gold mines and their veins vary in the richness of their ore and its ease of extraction, the richest and most accessible are exploited first. Ongoing gold production means depleting the lowest-cost sources and having to resort to progressively poorer mines, or digging deeper, so that the cost of mining an ounce of gold begins progressively rising from year to year. In that case, where the unit cost of gold production is no longer constant but is determined jointly with the volume of production, and the volume of production in turn depends on demand, we no longer have a classical or purely cost-of-production theory of value.²² The same logic applies to silver mining.

The depletion effect operating by itself would give an upward trend to the purchasing power of gold or silver, implying a general decline in prices under a gold or silver standard. Historically, periods of declining prices under metallic standards were occasional and mild. In the long run the depletion effect was offset by technical progress in mining, such that the historical trend rate of inflation under silver and gold standards was very close to zero.²³

HOW LARGE A PROBLEM WAS INFLATION FROM GOLD DISCOVERIES?

With the discovery of gold in California in 1848 and a similar Australian discovery three years later, leading to large increases in gold extraction, supply and demand analysis of the gold standard became an important practical issue. In an early forecast, the French economist Michel Chevalier predicted that the new gold supplies from California and Australia would cut the purchasing power of gold in half (the world price level would double) in a generation. William Stanley Jevons in 1863, to investigate what had actually happened thus far, used a collection of raw material prices to construct one of the first weighted price indices. He calculated that the price level so measured had risen only 9 to 15 percent over the previous fifteen years, an inflation rate of less than 1 percent per year. He forecast

²² For a modern exposition of how a gold standard works, based on explicit stock and flow supply and demand curves, see Lawrence H. White, *The Theory of Monetary Institutions* (Oxford: Basil Blackwell, 1999), ch. 2.

²³ Arthur J. Rolnick and Warren E. Weber, "Money, Inflation, and Output under Fiat and Commodity Standards," *Journal of Political Economy* 105 (December 1997): pp. 1308–21.

an eventual “gradual and gentle” cumulative rise of 30 percent over thirty years, the effects of which he described as “almost invisible.”²⁴

Walter Bagehot, editor of *The Economist* and a prominent authority on banking and finance, made his own index-number study in 1872, using manufactured goods prices. He found that the purchasing power of gold had declined between 1849 and 1864, then had flattened out and begun rising. After 1864 the outflow from California and Australia was no longer outpacing world economic growth and the associated growth in the demand for metallic gold. By 1871 the price level had nearly returned to where it had been in 1849.

The reconstructed gold-rush-era numbers of today’s standard price level series, the Consumer Price Index, indicate that over the decade of greatest California gold output the price level in the United States cumulatively increased only 8.8 percent, from 7.41 in 1849 to 8.06 in 1859 ($1982-4=100$), for a compound annual price inflation rate of less than 1 percent.²⁵ Using the UK Retail Price Index series (1913 = 100) to proxy for world gold price inflation over a longer period (U.S. prices will not do after 1860 because the gold standard gave way to a greenback standard from the start of the Civil War to 1879), we find a cumulative price level rise of 26 percent from 1849 to a peak in 1867, an inflation rate of 1.3 percent per annum, after which prices began a slow decline. Even the most dramatic gold discoveries, then, generated inflation rates that were lower than the lowest inflation rates produced by fiat money systems since 1971.

BIMETALLISM

Legally the United States was on a bimetallic standard for most of the nineteenth century. Statute law defined the dollar as a certain mass of silver (371.25 grains) and at the same time as a certain mass of gold (23.22 grains, after 1837). The implied legal tender ratio between the two metals was approximately 16 to 1, meaning that for purposes of discharging dollar debts the legal system treated 16 ounces of silver as the equivalent of 1 ounce of gold. France was the other leading nation that practiced bimetalism in the nineteenth century, there at a 15.5 to 1 mint ratio.

The original motivation for bimetalism was to provide interchangeable full-bodied coins in both high and low denominations. Gold, when it was

²⁴ William Stanley Jevons, *A Serious Fall in the Value of Gold Ascertained, and Its Social Effects Set Forth with Two Diagrams* (London: Edward Stanford, 1863) pp. 48–9.

²⁵ Lawrence H. Officer, “The Annual Consumer Price Index for the United States, 1774–2008,” *MeasuringWorth*, 2009. Available online at <http://www.measuringworth.org/uscpi/>.

(say) sixteen times more precious than silver, could not conveniently be used for small payments. Imagine a ten-cent gold coin, one-sixteenth the mass of a silver dime: it would get lost among pocket lint. The United States Mint never produced gold coins smaller than \$1 (which in 1895–1900 was equivalent to about \$25 in 2011 purchasing power). Silver, on the other hand, was inconvenient for large payments when it weighed about sixteen times as much as equivalent gold coins. In silver coins \$100 would weigh about 6 avoirdupois pounds (2.7 kilograms), a lot to carry around.²⁶ The largest silver coin minted in the United States was \$1. Thus high-value coins were made of gold, lower-value coins of silver. Stamping silver and gold coins in the same dollar units meant that five silver \$1 coins were interchangeable with a single \$5 gold coin, unifying the coinage system.

The convenience of interchangeability required a fixed exchange rate between full-bodied silver and gold coins. A major problem with bimetalism derived from that same fixed exchange rate. If silver and gold dollar coins have been struck at the ratio of 16 to 1, and both are legal tender in unlimited amounts, then whenever the world market exchange rate moves away from 16 to 1, the legal ratio embodied in existing coins becomes inconsistent with the current world market exchange rate. Whichever metal can now buy more on the world market will disappear from the home market.

Consider a concrete example. A borrower can discharge a \$100 debt to a domestic lender by paying either gold dollar coins or silver dollar coins. If the legal ratio is 16 to 1 while the world market exchange rate has moved to 15 to 1 (silver has become more precious in the market), gold is now legally overvalued. A debtor would be foolish to pay off the debt in silver. Sixteen ounces in silver discharge no more debt at home than one ounce of gold, but fetch more than one ounce of gold on the world market. Put another way, \$100 in silver dollars can buy imported goods that would cost \$106.67 in gold dollars. Silver coins are better exported – spent in world markets – than spent at home. If the export of American silver to the world market (and the purchase of gold to replace silver dollars with \$1 gold coins) is not enough to raise the world exchange rate to 16 to 1, then full-bodied silver coins keep being exported until they disappear from domestic circulation.

A few economists such as Francis A. Walker, the president of the Massachusetts Institute of Technology, built a sophisticated case for *international* bimetalism, a system under which all countries agree to use the same mint ratio. Walker argued that the world market silver-gold exchange rate would stabilize at the mint ratio, at least in the face of moderate

²⁶ Calculation based on the 26.73 gram weight of the Morgan silver dollar (90% fine).

nonmonetary supply or demand shifts, because of the tendency to substitute gold for silver in circulation when silver began to become more precious (and vice versa).²⁷ At the time Walker wrote, however, the range for that kind of substitution was shrinking to irrelevance as banknotes displaced gold coins from domestic circulation.

The phenomenon that legally undervalued coins disappear from circulation, while legally overvalued coins remains, is known as *Gresham's law*. The common formulation of Gresham's law is that "bad money drives out good." The terms "bad" and "good" are applicable in some cases. For example, when a king gives legal tender status at face value to newly debased coins (which are "bad" because they contain less pure silver), any old full-weight ("good") silver coins of the same face value will be melted or exported. The phenomenon of debased coins' driving old full-weight coins from circulation was known to the ancients. Indeed it was so well known that Aristophanes in his play *The Frogs* (405 B.C.) joked that debased politicians seemed to drive out good politicians in the same way:

Oftentimes have we reflected on a similar abuse
In the choice of men for office, and of coins for common use;
For your old and standard pieces, valued and approved and tried,
Here among the Grecian nations, and in all the world beside,
Recognized in every realm for trusty stamp and pure assay,
Are rejected and abandoned for the trash of yesterday;
For a vile, adulterate issue, drossy, counterfeit and base,
Which the traffic of the city passes current in their place!²⁸

The terms "bad" and "good" do not really apply, however, to the case where legally overvalued gold drives out undervalued silver. There is nothing intrinsically "bad" about gold or "good" about silver, and the driving out is reversed if the legal overvaluation goes the other way.

Gresham's law was well known to the classical economists. David Ricardo noted its operation under bimetallism in Great Britain:

Whilst each of the two metals was equally a legal tender for debts of any amount, we were subject to a constant change in the principal standard measure of value. It would sometimes be gold, sometimes silver, depending entirely on the variations in the relative value of the two metals; and, at such

²⁷ Francis A. Walker, *International Bimetallism* (New York: Henry Holt, 1896). For a qualified endorsement of Walker's case see Milton Friedman, "Bimetallism Revisited," in Friedman, *Money Mischief* (Orlando, FL: Harvest, 1994), pp. 126–56.

²⁸ Quoted in J. Laurence Laughlin, *The History of Bimetallism in the United States*, 2nd ed. (New York: D. Appleton, 1896), p. iv.

times, the metal which was not the standard would be melted and withdrawn from circulation, as its value would be greater in bullion than in coin.²⁹

When Gresham's law works to expel silver, it creates a void in small denominations of money where silver coins used to serve. Gold coins may take their place as far down as gold denominations can practically go, but small change requires another expedient. One expedient is to allow *underweight* silver coins to pass at face value. Because the world market values coins according to their precious metallic content, badly worn and otherwise sufficiently underweight silver coins – in the preceding example one-sixteenth or more under the legal standard – will remain in domestic circulation if accepted there at face value. Even worn silver coins will progressively disappear, however, if the world silver price continues to rise. Making change becomes a problem as shortages occur in the lower denominations.

A more permanent solution became available, and was eventually adopted as the standard solution, once redeemable bank-issued currency became generally accepted. The solution was to give up using pure silver coins in small denominations and substitute gold-redeemable token coins and banknotes. By using tokens and banknotes for small change, a mono-metallic gold standard system solved the problem of keeping all denominations in circulation, and in addition eliminated the problem of wear and tear on full-bodied silver coins.

BIMETALLISM AND INFLATIONISM

The mild world deflation after 1867 was due to vigorous economic growth. The world's output of goods and services grew rapidly, faster than the output of gold. Populist groups representing worker and farmer interests in the United States nonetheless argued to the effect that economic prosperity would be even greater – at least for workers and farmers – with a bit of inflation. Bimetallism became a celebrated political cause in the United States in the late nineteenth century, not as a device for small change, but as a device for creating inflation (or avoiding deflation). The relative value of silver was falling on world markets. The ratio 16 to 1 had not been far from the world market exchange rate in 1830, but by 1900 silver had fallen so far that the world market rate was 30 to 1. If the U.S. Mint had allowed it, the public would have flooded the mint with cheap silver. With free (zero minting fees) and unlimited coinage of silver at a mint ratio of 16 to 1, unlimited arbitrage profits would have been available at the mint's expense.

²⁹ Ibid.

Step one: Trade 1 ounce of U.S. gold coins on world markets for 30 ounces of silver. Step two: Coin 16 ounces of that silver at the U.S. Mint to get enough silver dollars to be equivalent domestically to 1 ounce of gold coins. Step three: Profit. The net gain is 14 ounces of silver, which can be coined and spent on anything. Repeat ad infinitum. To avoid taking huge losses and fostering the outflow of gold coins, the mint in 1873 stopped coining silver dollars, putting the United States de facto on a monometallic gold standard. Silverites denounced this as “The Crime of 1873.”³⁰

When William Jennings Bryan, the Democratic Party’s presidential candidate in 1896, in 1900, and again in 1908, urged in his 1896 campaign the “free and unlimited coinage of silver at 16 to 1,” he argued in effect that flooding the economy with cheap silver dollars would generate prosperity. Orthodox economists rejected the notion, but populists supported it. The support for the policy across the farm belt can be explained by the one-time effect it *would* have had of inflating away much of the farmers’ debt (at the expense of their creditors).

Bryan’s 1896 presidential nomination speech offered a famous rhetorical trope likening the gold standard’s supposed effects on workers and farmers to the crucifixion of Christ: “[Y]ou shall not press down upon the brow of labor this crown of thorns. You shall not crucify mankind upon a cross of gold.” The crucifixion metaphor drew on the anti-Semitic view that the Jews were to blame for the crucifixion of Christ. It insinuated that Jewish bankers controlled international finance under the gold standard and were similarly to blame for workers’ suffering. A political cartoon from the populist periodical *Sound Money* made the message blatant: it showed the Republican Party boss Mark Hanna (with President McKinley in his jacket pocket) placing a crown of thorns on a suffering man labeled “Labor,” who has been nailed to a cross labeled “Gold.” The cartoon Hanna stood on the shoulders of a large-nosed bearded man whose sleeve was inscribed “Rothschild,” representing the Jewish Rothschild banking dynasty, and in smaller type “owner of most of the gold in the world.”³¹

The economist J. Laurence Laughlin of the University of Chicago led the opposition to bimetallism in the United States. Spelling out Gresham’s law – and quoting Aristophanes and Ricardo – he argued that the practice

³⁰ See Milton Friedman, “The Crime of 1873,” *Journal of Political Economy* 98 (December 1990), pp. 1159–94. Friedman found that, although it rose afterward with the demonetization of silver, the gold-silver world market exchange rate in 1873 was still close enough to 16:1 to make continued coinage of silver dollars practical. In Friedman’s view it would also have desirably stabilized the market ratio.

³¹ The cartoon may be viewed at <http://projects.vassar.edu/1896/0820csm.jpg>.

of bimetallism “is an impossibility for any length of time, since, as soon as one metal in the market falls slightly below the legal ratio, the other metal will be driven out of circulation, and the country will really have only a succession of single standards, alternating between gold and silver.” He charged the free-silver bimetallists with disreputably seeking transfers from taxpayers to silver-mine owners, and from creditors to debtors through inflation: “[T]he movement to force silver upon the United States at the present ratio of 1:16 is . . . intended to favor owners of silver mines, and dishonest debtors who wish a cheaper unit of payment, at the expense of national honor and credit.”³² After passing earlier legislation (the Bland-Allison Act, the Silver Purchase Act) that made concessions to the silver interest, in the Gold Standard Act of 1900 the Congress finally committed the country to a monometallic gold standard.

MARSHALL’S AND FISHER’S PROPOSALS FOR MODIFYING THE GOLD STANDARD

The alternating periods of rising and declining prices during the nineteenth century, although the rates of price change were mild by modern standards, troubled Alfred Marshall. Marshall opposed a pure paper or fiat monetary standard on political economy grounds: a government empowered to issue new money would abuse the power to finance excessive spending. But he also worried that a monometallic (one-metal) standard – an ordinary gold standard or silver standard – was too vulnerable to variation in the price level due to sudden supply shifts like the California gold rush. He offered a novel policy proposal to reduce price level variations while retaining a kind of metallic standard. In Marshall’s “symmetallic” standard, banknotes would be redeemable for so many ounces of gold *plus* so many ounces of silver. Coins might even be minted with a gold center surrounded by a silver ring. The idea was to diversify the risk of supply or demand shifts for either one of the precious metals. Suppose that a “twenty dollar” coin contained ten dollars worth of gold and ten dollars worth of silver at current rates. A gold rush that reduced the purchasing power of gold by 10 percent would then reduce the purchasing power of the coin, or of a twenty dollar note redeemable for the coin, by only one dollar. Under an ordinary gold standard, by contrast, the coin or note would drop two dollars in value.

³² Laughlin, *History of Bimetallism*, pp. 5–6. Robert Giffen, a leading economist opposing bimetallism in Great Britain, similarly focused his critique on refuting cheap-money nostrums.

Irving Fisher was similarly concerned about the problem of variations in the purchasing power of money due to shifts in the supply of and demand for gold. In *Stabilizing the Dollar* (1920) Fisher proposed his own clever idea: The Federal Reserve should vary the gold content of the dollar so as to stabilize the purchasing power of the dollar over goods and services. For an example of how the “compensated-dollar” idea was meant to work, suppose that demand for gold suddenly rises relative to supply such that the purchasing power of gold over goods (measured by bundles of goods per ounce of gold) would have to rise by 5 percent. The price level measured in dollars of constant gold content (dollars per bundle of goods) would correspondingly fall 5 percent. Under Fisher’s proposal the Fed would offset the price level movement – stabilize the number of dollars it takes to buy a bundle of goods – by immediately redefining the dollar to contain 5 percent less gold.

There is a serious problem with Fisher’s scheme as stated: if members of the public anticipate that such a cut in the gold content of the dollar will be made on the date that the Consumer Price Index will next be published, they will immediately demand as much gold as they can get from the Fed at the current redemption rate, possibly more than the Fed has on hand. Later authors have offered ways to modify the scheme to prevent this problem.³³

The contrast between Marshall’s symmetrical reform and Fisher’s compensated-dollar reform reflected an underlying difference. Marshall wanted to retain the advantages of a uniform world currency, especially its freedom from exchange rate variations among nations. Fisher was willing to accept varying exchange rates with other nations for the sake of achieving stability of the U.S. dollar price level. The trade-off arises because some reductions in the purchasing power of the U.S. dollar over goods can be due to increases in the world prices of goods that Americans consume relatively heavily or increases in the local prices of nontraded goods like haircuts or housing. Increasing the gold content of the U.S. dollar to compensate for such changes that have not affected other countries to the same degree would mean increasing the dollar’s gold content relative to that of other national currencies (Canadian dollar, Mexican peso, British pound, etc.) and would thereby require changes in exchange rates.

EXCHANGE RATES UNDER THE CLASSICAL GOLD STANDARD

When two currencies are, respectively, defined as (say) 2 grams of gold and 3 grams of gold, the exchange rate between them cannot differ much

³³ In particular see David Glasner, *Free Banking and Monetary Reform* (Cambridge: Cambridge University Press, 1989), pp. 230–6.

from the ratio 3:2. Before the First World War, the U.S. dollar was defined by U.S.\$1 = 0.048 oz. pure gold (often expressed the other way around, as 1 oz. pure gold = U.S.\$20.67). At the same time the British pound was defined by UK£1 = 0.233 oz. of pure gold (often expressed the other way around in terms of mint-alloy gold (91 percent pure) as 1 oz. of gold = £3.17.10½ (3 pounds, 17 shillings, 10½ pence; there were 20 shillings to a pound, 12 pence to a shilling). These gold definitions implied a fixed exchange rate between the dollar and the pound; £1 could be converted to 0.233 oz. pure gold in the United Kingdom, while that 0.233 oz. pure gold could be converted into \$4.86 in the United States. Arbitrage thus fixed the exchange rate between the dollar and the pound sterling at £1 = U.S.\$4.86, plus or minus the cost of shipping gold from one country to the other.

Among nations whose currencies were fixed to gold in this way, gold flows (if central banks did not impede them) maintained international equilibrium in the manner Hume had described.³⁴ By operating continuously, the gold flows prompted by price differences prevented any nation's prices on traded goods from ever drifting far below or above world prices, thereby avoiding the need for a difficult adjustment in the form of a major inflation or deflation.

DURING AND AFTER THE FIRST WORLD WAR

During the First World War, the governments of Britain, France, Germany, and other combatant nations of Europe each suspended the gold standard so that it could print money to finance war expenditures. With currency irredeemable in gold, no gold outflows constrained the government's monetary expansion. Considerable monetary expansion had the inevitable effect of considerably raising the domestic price level. At war's end, the British pound, the French franc, the German mark, and other currencies had dropped considerably in purchasing power. Correspondingly their market exchange rates against gold had dropped far from their prewar parities.

The Bank of England expanded so much during and immediately after the war that the sterling retail price index had more than doubled. Britain then faced a stark choice. To reestablish full gold redeemability for the pound sterling while supporting a doubled price level would require a halving of the pound's gold content, a huge devaluation. The trustworthiness of the pound would be shattered, and London's role as a financial center would

³⁴ On the ways in which central banks often did intervene, see Arthur I. Bloomfield, *Monetary Policy under the Classical Gold Standard* (New York: Federal Reserve Bank of New York, 1959).

correspondingly be diminished. The alternative, to restore the old prewar parity, would require a painful 50 percent deflation of prices. Britain opted for the second path despite Keynes's warnings about the dire consequences. The economy had deflated only a small part of the way when Churchill resumed the old parity in 1925. With the pound's purchasing power not yet restored, a gold coin bought much less in Britain than elsewhere. Gold began to flow out massively. Mercantilist-type restrictions on international payments, and even the cooperation of the Federal Reserve in lowering U.S. interest rates in 1927 to drive financial flows toward London, failed to stanch the bleeding. When the Bank of England's gold reserves became so low that suspension became inevitable, Britain abandoned course in 1931. At that point sterling prices were still 45 percent above their 1913 level.³⁵ Keynes wrote to a London newspaper: "There are few Englishmen who do not rejoice at the breaking of our gold fetters. We feel that we have at last a free hand to do what is sensible."³⁶ But there were few Englishmen who rejoiced that the pound immediately dropped by 30 percent in the foreign exchange market.

Similar difficulties faced other countries, and a rash of suspensions and devaluations followed Britain's. As a result the 1920s and 1930s were not decades of a restored classical gold standard, but of international monetary chaos. Leland Yeager has described the prevailing monetary policies this way:

The gold standard of the late 1920s was hardly more than a façade. It involved extreme measures to economize on gold. . . . It involved the neutralization or offsetting of international influences on domestic money supplies, incomes, and prices. Gold standard methods of balance-of-payments equilibrium were largely destroyed and were not replaced by any alternative. . . . With both the price-and-income and the exchange-rate mechanisms of balance-of-payments adjustment out of operation, disequilibriums were accumulated or merely palliated, not continuously corrected.³⁷

³⁵ Taking 1913 = 100 as the base year, the retail price index stood at 245 in 1920, 145 in 1931. Lawrence H. Officer, "What Were the UK Earnings and Prices Then?" MeasuringWorth, 2009. Available online at <http://www.measuringworth.org/ukearnncpi/>. On Federal Reserve policy during this period see Allan H. Meltzer, *A History of the Federal Reserve, Volume 1: 1913–1951* (Chicago: University of Chicago Press, 2003), p. 171.

³⁶ Quoted by Thomas E. Hall and J. David Ferguson, *The Great Depression: An International Disaster of Perverse Economic Policies* (Ann Arbor: University of Michigan Press, 1998), p. 97.

³⁷ Leland Yeager, *International Monetary Relations: Theory, History, and Policy* (New York: Harper & Row, 1966), p. 290; quoted by Timberlake, *Monetary Policy in the United States*, p. 225.

Large amounts of British and continental European gold flowed into the United States during and after the First World War. The leaders of the new Federal Reserve System, which first opened its doors in 1914, often chose to “sterilize” the inflows, that is, to prevent them from expanding the domestic money stock and bank credit and thereby raising the price level, although such adjustments were part of Hume’s process for stemming the flows and restoring international payments equilibrium. John Wood has pointed to evidence showing “the Fed’s neutralization of gold flows in all but two years (1926 and 1931, when gold and Fed credit both rose) between 1920 and 1932.”³⁸ Thus the United States too was violating “the rules of the game” of the prewar gold standard. The economist Lionel D. Edie in 1932 argued that the automatic operation of the gold standard in the United States had ended with the establishment of the Fed:

The Federal Reserve Act cut the tie which binds the gold reserve directly to the credit volume, and by so doing automatically cut off the basic function of the gold standard. . . . We are not now on the gold standard . . . and we have not been for some time. . . . [I]t is time to recognize that the Federal Reserve mechanism does not constitute an automatic self-corrective device for perpetuating a gold standard.³⁹

Accordingly the monetary chaos of the 1920s and 1930s did not follow from the working of a classical (self-adjusting, prewar-style) gold standard but followed from central banks pursuing independent monetary policies under a rubric of a “gold-exchange” standard.

In a series of lectures published in 1937 as *Monetary Nationalism and International Stability*, F. A. Hayek argued the virtues of an automatically operating international gold standard in which national central banks do not manipulate interest rates to sterilize, or impose quantitative restrictions to impede, international gold flows. Gold reserve flows between countries do not deserve their reputation for being inherently disruptive, Hayek argued. They need not impose an inflationary boom on the inflow country and a credit crunch in the outflow country. They only have those effects where banking systems end at the border. Banking systems had become nationally distinct because international branching of banks was not allowed, and because a central bank was the sole holder of each nation’s gold reserve. Such an artificial one-reserve system was the reason that nationally specific

³⁸ John Wood, “Monetary Policy and the Great Depression,” Wake Forest University working paper (2008), p. 15. See also Meltzer, *History of the Federal Reserve*, pp. 166–7.

³⁹ Quoted by Timberlake, *Monetary Policy in the United States*, pp. 224–5.

supplies of bank credit expanded with gold inflows and contracted with gold outflows.⁴⁰

GOLDEN FETTERS?

Some economic historians in recent years have offered a different view, attributing the problems of the interwar international monetary system to the way the gold standard constrained central banks. The title of an influential 1992 book by Barry Eichengreen invoked Keynes's phrase quoted four paragraphs ago, calling the constraint *Golden Fetters*.⁴¹ Where defenders of the gold standard have applauded the barrier against *excessive* money issue provided by a commitment to gold redemption at a fixed parity, Eichengreen argued that the gold standard prevented central banks from keeping an *adequate* domestic money stock during the Great Depression. Monetary contraction and deflation occurred, in his view, because central banks adhering to the gold standard were unable to offset the contraction. Peter Temin argued a similar position:

The Fed had contracted in the prosperous conditions of 1928 to stop the gold outflow; it did the same in the depressed climate of 1931. Adherence to the gold standard compelled the Federal Reserve to depress the economy further in the midst of the Great Depression [1936–7].⁴²

Eichengreen and Temin viewed the Fed's actions as instances of conforming to the dictates of the gold standard, in contrast to the view represented by Edie and Yeager that the Fed's discretionary actions contravened the gold standard. Under Hume's logic, contrary to Temin's, a country with depressed prices should experience gold inflows, not outflows, so it is hard to see how its central bank would ever be compelled by the gold standard to depress the economy further.

It is consistent with Hume's logic, however, for a sharp increase in demand for gold in a large country (say, due to bank runs and fear of further runs) to depress domestic prices and thereby drain gold from other gold-standard countries. Eichengreen argued that the U.S. banking collapse and deflation

⁴⁰ F. A. Hayek, *Monetary Nationalism and International Stability* (1937). For elaboration and embroidery on Hayek's argument see Lawrence H. White, "Monetary Nationalism Reconsidered," in Kevin Dowd and Richard H. Timberlake, eds., *Money and the Nation-State* (New York: Transaction, 1998), pp. 377–401.

⁴¹ Barry Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression, 1919–1939* (New York: Oxford University Press, 1996).

⁴² Peter Temin, *Lessons from the Great Depression* (Cambridge, MA: MIT Press, 1989) pp. 25–9.

of the early 1930s did in fact drain gold from the rest of the world, spreading the Great Depression abroad. He charged that the international gold standard not only conveyed a “destabilizing impulse from the United States to the rest of the world” but “was responsible for the failure of monetary and fiscal authorities to take offsetting action once the Depression was underway.” The gold standard “was the binding constraint preventing policymakers from averting the failures of banks and containing the spread of financial panic. For all these reasons, the international gold standard was a central factor in the worldwide Depression.” For economies to recover from the depression “required discarding not just the gold standard but also the gold standard *ethos*” that inhibited expansionary monetary policy.⁴³ A study by the economic historians Michael D. Bordo, Ehsan U. Choudhri, and Anna J. Schwartz has disputed Eichengreen’s claim that the Fed did not have enough gold reserves to pursue an expansionary monetary policy.⁴⁴

Eichengreen’s book was favorably reviewed by Ben Bernanke, later to become chairman of the Federal Reserve System, then an economist at Princeton University. But in the course of his review, Bernanke observed that “conscious Federal Reserve policy” determined whether money was loose or tight. “High returns on both bonds and stocks attracted gold into the U.S., but the Fed, intent on its domestic policy goals, sterilized the inflows” beginning in 1928. Such action by the Fed, Richard H. Timberlake argued in a critique of Eichengreen, implied that “it was the central bank, not the gold standard, that was running the show.”

If the international gold standard “was such a disaster for the world in 1929 and after,” Timberlake asked, “why did its faults not manifest themselves sooner?” Timberlake found it illogical to blame the gold standard, the system that worked well in the prewar period when central banks were *less* active (or, as in the United States, did not yet exist), for the unfortunate results of the interwar system, rather than blame the conscious policy making of central bankers.⁴⁵

Allan H. Meltzer has specifically emphasized that the British sterling price level had risen relative to the U.S. dollar price level during the First

⁴³ Eichengreen, *Golden Fetters*, pp. xi, 393.

⁴⁴ Bordo, Choudhri, and Schwartz, “Was Expansionary Monetary Policy Feasible during the Great Contraction? An Examination of the Gold Standard Constraint,” *Explorations in Economic History* 39 (January 2002), pp. 1–28.

⁴⁵ Richard H. Timberlake, Jr., “Gold Standards and the Real Bills Doctrine in U.S. Monetary Policy,” *Economic Journal Watch* (August 2005), pp. 196–233, <http://econjwatch.org/issues/volume-2-issue-2-august-2005>. The fragility of the interwar system due to central bank deviation from the classical gold standard was also the theme of Jacques Rueff, *The Monetary Sin of the West* (New York: Macmillan, 1972).

World War. After the war, the Fed and the Bank of England thwarted the classical gold standard's mechanism for adjusting to such an imbalance. Absent devaluation of the pound, the ratio of the two price levels would have to adjust:

To get the gold standard operating as automatically as before World War I, either Britain had to deflate or the United States had to inflate. Reaching this long-term solution involved short-term changes that neither country would accept.... The failure was a failure of a managed system operating under inconsistent objectives on both sides.⁴⁶

The Bank of France also played a major role in undermining the international gold standard. By devaluing deeply, France initially attracted a large inflow of gold. Under the normal operation of the gold standard, a gold inflow expands the domestic money stock, which raises the price level, and higher domestic prices bring the inflow to an end. The Bank of France sterilized the inflows, that is, prevented them from expanding the domestic money stock, and continued to absorb the world's gold well beyond the natural limit. France's absorption of huge amounts of gold put downward pressure on the rest of the world's prices.⁴⁷

Despite such evidence of central bank misconduct, the consensus at Bretton Woods was that the best way to remove the conflict between the gold standard and central banking was to forge a new system that would leave central bankers *less* constrained in their domestic policy making, while coordinating their exchange rate policies through an international agency.

THE BREAKDOWN OF BRETTON WOODS AND THE CLOSING OF THE GOLD WINDOW

From its inception the Bretton Woods exchange-rate system harbored three conflicting objectives. It aimed to restore fixed exchange rates in the manner of the classical gold standard. It aimed to allow central banks more leeway to pursue independent national monetary policies. And it also aimed to restore free trade and international capital mobility. These three aims together were incompatible: only two of the three are simultaneously possible. With a fixed exchange rate between Britain and France, for example, and with free trade so that goods and payments are allowed to flow

⁴⁶ Meltzer, *History of the Federal Reserve*, p. 210.

⁴⁷ *Ibid.*, pp. 179–81; Douglas A. Irwin, "Did France Cause the Great Depression?" NBER Working Paper No. 16350 (September 2010).

freely across the English Channel, the British price level must be consistent with the French price level. A pound sterling cannot buy fewer goods than the number of francs that the pound will buy at the given exchange rate, because if it did, it would trigger corrective arbitrage. Independent monetary policies, however, mean independent national price levels. One of the three aims had to give. The Bretton Woods trio of aims has become known among economists as “the ‘impossible trinity.’”

In the early days of the Bretton Woods system, free trade and capital mobility was the aim that gave. European countries were allowed to retain their wartime exchange controls through the late 1940s and most of the 1950s. At the Bretton Woods press briefing noted at the outset of the chapter, a reporter pointed out the ambiguity to Keynes: “It is thought here that the purpose of the Fund is to eliminate foreign exchange restrictions, but in your speech – a great point was made that the Fund will allow each country to control all capital.” Keynes’s response did not remove the ambiguity: “The object of the Fund is to remove exchange restrictions as soon as possible. It provides that capital movements must be controlled, and indeed that is an essential condition.”⁴⁸

When countries finally began to lift their exchange controls, beginning around 1958–60, exchange rate fixity began to break down. The system limped from crisis to crisis as relatively inflationary central banks depleted their dollar reserves. Unwilling to tighten monetary policy, central banks went to the International Monetary Fund (IMF) to borrow reserves. When those ran out, they returned to the IMF for permission to devalue against the U.S. dollar. France devalued in 1957 and 1958, Canada in 1962, Great Britain and Denmark in 1967, and France again in 1969. Meanwhile relatively less inflationary central banks had to revalue (increase their currency unit’s exchange value against the dollar) to avoid importing dollar inflation. Germany and the Netherlands revalued in 1961, Germany again in 1969, Switzerland and Austria in 1971. Toward the end of the Bretton Woods era, lower-inflation countries began to leave the pegging system and allowed their currencies to float (upward) against the dollar: Canada in 1970, Germany and the Netherlands in 1971.⁴⁹

As the revaluations and upward floats of 1969–71 indicated, the Bretton Woods system was destroyed at the end by the inflationary policies of the key currency nation, the United States. During the 1960s the United States

⁴⁸ Van Dormael, *Bretton Woods*, p. 185.

⁴⁹ Samuel I. Katz, “Devaluation-Bias and the Bretton Woods System,” *Banca del Lavoro Nazionale Quarterly Review*, pp. 178–98.

ran a persistent balance of payments deficit. Under the classical gold standard, net payments from U.S. individuals and firms to their European counterparts would automatically be settled by an outflow of gold. Under the Bretton Woods system, net payments from Americans to Europeans placed U.S. dollars in the hands of European businesses, who swapped them for local currency at the central bank, putting the dollars in the hands of central bankers, who then had the *option* of redeeming them for gold. The U.S. government actively discouraged European central bankers from exercising the option, encouraging their governments instead to hold dollar assets (typically dollar-denominated U.S. Treasury bonds) permanently. The United States nonetheless lost gold throughout the 1960s. The administration of Lyndon Johnson tried to stem the losses in 1968 by imposing ad hoc trade and financial restrictions. U.S. gold reserves continued to get smaller and smaller. Johnson's successor, Richard Nixon, finally "closed the gold window" in 1971 when only a few months' worth of gold remained, breaking the U.S. pledge to redeem the dollar at a fixed rate. After a brief and unsuccessful attempt to glue a fixed-exchange-rate system back together, the era of floating exchange rates began.

A common view is that the inflation and drain of American gold were due to federal budget deficits associated with the Vietnam War. The fundamental reason for gold outflows, however, was the Federal Reserve's expansionary monetary policy and the resulting price inflation (discussed in more detail in the next chapter). As the dollar lost purchasing power at home, fixed exchange rates made imported goods a bargain (and U.S. exports difficult to sell). Imports exceeded exports, and the difference had to be paid for either with gold or with dollar IOUs like U.S. Treasury bonds. When European central banks finally tired of accumulating IOUs, they redeemed excess dollars for gold. U.S. government budget deficits did not have to be financed by printing money, and the printing press in fact financed only a small share of the deficits. The monetary expansion was primarily driven by attempts to reduce the unemployment rate using Keynesian aggregate demand management.

THE GLOBAL MONETARY REGIME SINCE 1971

The Bank of Italy's economist Fillipo Cesarano has nicely summarized the remarkable cumulative transformation of monetary institutions over the last hundred years, and the role played by developments in economic policy ideas:

Over the course of the twentieth century, the monetary system underwent an epochal change. Money's link to a commodity was severed, eliminating the basic feature of the system since the beginning of coinage and producing a break in the evolution of monetary institutions. This transformation was the product of a gradual process extending from World War I to the suspension of dollar convertibility on 15 August 1971, an act that merely gave official recognition to a preexisting state of affairs. The transition from the commodity standard to fiat money was driven by the interplay of the extreme shocks of the interwar period and advances in monetary theory, which were instrumental in designing the new monetary arrangements.⁵⁰

Cesarano's last sentence can be challenged. Those economists who dissented from the transition to fiat money would of course question whether the supporting developments in monetary economics – the spread of Keynesian and other views opposed to the gold standard – constituted *advances*. Critics of central banking would also note that the “extreme shocks” of the interwar period were *discretionary policy shocks* that the classical gold standard would have avoided. Those shocks, and the transition to fiat money, would not have been possible without the prior spread of central banking. An unprivileged private commercial bank cannot legally default on its contractual obligation to redeem for gold. A central bank sheltered by sovereign immunity can. The default of any particular commercial bank does not usher in fiat money. A central bank's permanent renunciation of gold does. The decline of opposition to central banking thus played an important enabling role.

After 1971, with the Fed now completely unconstrained by gold, the “Great Inflation” of the 1970s took off. We pick up that story in the next chapter, but the historical contrast in inflation rates between the gold standard and fiat money should be noted here. In a study covering many decades in a large sample of countries, the Federal Reserve Bank of Minneapolis economists Arthur Rolnick and Warren Weber found that “money growth and inflation are higher” under fiat standards than under gold and silver standards. Specifically: “The average inflation rate for the fiat standard observations is 9.17 percent per year; the average inflation rate for the commodity standard observations is 1.75 percent per year.” The fiat inflation rate result was not driven by a few extreme cases. In computing the average (geometric mean) rates of inflation, Rolnick and Weber deliberately omitted cases of hyperinflation (which occurred only under fiat money). They also noted that “every

⁵⁰ Filippo Cesarano, *Monetary Theory and Bretton Woods: The Construction of an International Monetary Order* (Cambridge: Cambridge University Press, 2006), p. 1.

country in our sample experienced a higher rate of inflation in the period during which it was operating under a fiat standard than in the period during which it was operating under a commodity standard.” Peter Bernholz of the University of Basel has similarly reported that “a study of about 30 currencies shows that there has not been a single case of a currency freely manipulated by its government or central bank since 1700 which enjoyed price stability for at least 30 years running.”⁵¹

Although growth in the stock of fiat money could in principle be as slow as (or slower than) growth in the stock of gold under a gold standard, it has not been so in practice. The long-serving Federal Reserve chairman Alan Greenspan recommended controlling the fiat money supply to mimic the behavior of a gold standard. In response to questioning at a 2001 congressional hearing, Greenspan said: “Mr. Chairman, so long as you have fiat currency, which is a statutory issue, a central bank properly functioning will endeavor to, in many cases, replicate what a gold standard would itself generate.” In particular, as does a gold standard, a fiat-money central bank should constrain money growth and should not “just pump out liquidity indefinitely.”⁵² Under Greenspan’s chairmanship, however, the Fed produced a geometric mean annual inflation rate of 3.3 percent per year, nearly twice the commodity-money mean rate of 1.75 percent reported by Rolnick and Weber.⁵³

By comparison with the classical gold standards, Bretton Woods gave central banks greater leeway to conduct discretionary monetary policy. The collapse of Bretton Woods in 1971 gave even greater leeway. Allan H. Meltzer has noted that “the flexibility that permits government to change policy ... has a cost: anticipations about the future conduct of policy are

⁵¹ Arthur J. Rolnick and Warren E. Weber, “Money, Inflation, and Output under Fiat and Commodity Standards,” *Journal of Political Economy* 105 (December 1997): 1308–21. Peter Bernholz, “The Importance of Reorganizing Money, Credit, and Banking When Decentralizing Economic Decisionmaking,” in James A. Dorn and Wang Xi, eds., *Economic Reform in China*, (Chicago: University of Chicago Press, 1990), p. 104, citing Michael Parkin and Robin Bade, “Central Bank Laws and Monetary Policy: A Preliminary Investigation” in M. A. Porter, ed., *The Australian Monetary System in the 1970s* (Melbourne: Monash University, 1978), pp. 24–39.

⁵² *Conduct of Monetary Policy ... Hearing before the Committee on Financial Services, U.S. House of Representatives*, 18 July 2001 (Washington, DC: Government Printing Office, 2001), p. 34. Here and in the previous few paragraphs I draw on Lawrence H. White, “Is the Gold Standard Still the Gold Standard among Monetary Systems?” Cato Institute Briefing Paper #100 (8 February 2008).

⁵³ Greenspan served as Fed chairman for 200.5 months, from September 1987 to January 2006. Geometric mean inflation rate computed as [(January 2006 Consumer Price Index [CPI] divided by October 1987 CPI) to the 12/200th power] minus 1. The arithmetic mean rate (which ignores compounding) was 3.6 percent.

altered, and uncertainty about the future conduct of policy increases.”⁵⁴ One indicator of increased uncertainty with the transition to fiat money was the disappearance of the fifty-year bonds that corporations used to issue under the gold standard during the nineteenth century. The overall average maturity of new corporate bonds shortened considerably.⁵⁵

⁵⁴ Allan Meltzer, “Monetary Reform in an Uncertain Environment,” *Cato Journal*, 3, no. 1 (Spring 1983) p. 95.

⁵⁵ Benjamin Klein, “Our New Monetary Standard: The Measurement and Effects of Price Uncertainty, 1880–1973,” *Economic Inquiry* 13 (December 1975), pp. 461–84.

The Great Inflation and Monetarism

In his *Newsweek* column of 2 February 1970, Milton Friedman enthusiastically applauded the previous week's appointment of Arthur Burns, his former college professor and mentor, as chairman of the Board of Governors of the Federal Reserve System. He lauded Burns as "the first person ever named Chairman of the Board who has the right qualifications for that post." Under Burns's predecessor the U.S. inflation rate had reached 5.5 percent in 1969, having averaged less than 1.5 percent between 1952 and 1965. Friedman's research had convinced him that inflation – persistently rising money prices of goods on average – was due to overly rapid growth in the stock of money, more and more dollars chasing each bundle of goods. As head of the central bank, Burns would be in a position to control the quantity of money in the American economy. Friedman encouraged Burns to produce growth in the money stock "low enough to avoid renewed inflation."¹

In only a few months Friedman had to choose between continuing to express his views honestly and keeping his friendship with Burns unimpaired. As Fed chairman Burns began making public statements attributing inflation not to previous monetary policy, but to "cost-push" factors beyond the central bank's control. In July 1971 Burns told a congressional hearing: "The rules of economics are not working in quite the way they used to. Despite extensive unemployment in our country, wage rate increases have not moderated. Despite much idle industrial capacity, commodity prices continue to rise rapidly." He called for federal wage and price controls to fight this supposedly new type of inflation – a policy response that in Friedman's view was akin to fighting a fever by breaking the thermometer.

¹ Milton Friedman, "A New Chairman at the Fed," *Newsweek*, 2 February 1970.

In May 1970 Friedman sent Burns a lengthy handwritten letter criticizing Burns's arguments and policy proposals. Burns was not pleased, and personal relations between the two became chilly.² The disagreement went public as Friedman in lectures, newspaper interviews, and writings challenged Burns's statements. At the December 1971 meetings of the American Economic Association, Friedman quoted and rebutted Burns's congressional hearing statement. Examining the data, Friedman found that inflation was in fact responding as usual to money growth. The economy was performing poorly because the Fed under Burns was pursuing "erratic and destabilizing monetary policy [that] has largely resulted from the acceptance of erroneous economic theories."³ A sharper rebuke by a student of his former teacher, consistent with professional decorum, is hard to imagine.

POSTWAR AMERICAN MONETARY POLICY

During the Second World War, American monetary policy was dedicated to providing cheap credit to the federal government. The Federal Reserve System became formally committed in 1942 to allowing the Treasury to borrow at low interest rates: no more than 0.375 percent on short-term Treasury bills, 2.5 percent on long-term Treasury bonds. To keep Treasury borrowing that cheap the Fed continuously added to the supply of loanable funds, injecting newly created money. The resulting upward pressure on prices (ever more money chasing each bundle of goods) was suppressed by wage and price controls enforced by the Office of Price Administration (1941–7). At the outset of the Korean War, with the inflation rate spiking upward in 1951, price controls were reinstated under the Office of Price Stabilization (1951–3). To reduce the inflationary pressures from monetary policy, the U.S. Treasury and the Federal Reserve System reached an "Accord" in 1951 that gave the Fed independence to formulate its own monetary policy, no longer tied to the Treasury's borrowing requirements.⁴

After the Treasury-Fed Accord, the Fed maintained moderate rates of money growth, diluting the purchasing power of the dollar relatively little.

² Edward Nelson, "Milton Friedman and U.S. Monetary History: 1961–2006," *Federal Reserve Bank of St. Louis Review* (May/June 2007), p. 157.

³ Milton Friedman, "Have Monetary Policies Failed?" *American Economic Review* 62 (March 1972), p. 13. For a secondary account of Burns's views and policies see Robert L. Hetzel, "Arthur Burns and Inflation," *Federal Reserve Bank of Richmond Economic Quarterly* 84 (Winter 1998), pp. 21–44.

⁴ For a history of the Accord, see Robert L. Hetzel and Ralph F. Leach, "The Treasury-Fed Accord: A New Narrative Account," *Federal Reserve Bank of Richmond Economic Quarterly* 87 (Winter 2001), pp. 33–5.

Over the next fourteen years the annual consumer price inflation rate averaged less than 1.5 percent. But in the mid-1960s the Fed's restraint gave way. An annual inflation rate below 1.5 percent would not be seen again in the two decades following 1965. Over the next seven years, 1966–72 inclusive, annual inflation rates averaged more than 4 percent. Over the following seven, 1973–9, inflation stepped up to more than 8 percent on average, hitting double digits in 1979. Inflation remained above 10 percent for the next two years, reaching its peak rate of 13.6 percent in 1980. In a play on “the Great Depression,” monetary historians have labeled the episode “the Great Inflation.”⁵

Inflation in the United Kingdom and other nations rose even higher. Britain's inflation rate was in double digits for seven of the eight years 1974–81 inclusive, with a peak of 24.2 percent in 1975 and a second local peak of 18.0 percent in 1980.⁶

Many economists initially struggled to understand the inflation. Keynesian economists of the day held a variety of nonmonetary theories of inflation. All failed to explain why inflation rates had risen, and especially failed to explain why inflation remained high even during recession years of high unemployment and slack output. To them, as to Arthur Burns, the combination of rising inflation with unemployment and idle capacity meant that the “rules of economics” were “not working” in their accustomed way.

Into the breach stepped Milton Friedman and the “monetarist” school, offering an updated version of the “quantity theory of money,” which might more accurately be called the quantity-of-money theory of the price level.⁷ The key lesson of the quantity theory is that an increase in the nominal money stock (M) causes a proportional rise in the price level (P), other things equal. With more dollars chasing a given volume of goods, each unit of goods commands more dollars. Faster expansion of M causes faster growth of P , which is to say a higher inflation rate. The monetarists, unlike the Keynesians of the day, emphasized that the central bank controls the growth of M , and therefore the central bank is responsible for any persistent inflation.

Under the classical gold standard, there had not been as much variation in the inflation rate to explain. Growth of the money stock was not at the

⁵ For example, Allan H. Meltzer, “Origins of the Great Inflation,” Federal Reserve Bank of St. Louis *Review* (March/April 2005, part 2), pp. 145–75.

⁶ Jim O'Donoghue, Louise Goulding, and Grahame Allen, “Consumer Price Inflation Since 1750,” UK Office of National Statistics *Economic Trends* 604 (March 2004), p. 46. Available online at http://www.statistics.gov.uk/articles/economic_trends/ET604CPI1750.pdf.

⁷ J. Huston McCulloch, *Money and Inflation: A Monetarist Approach*, 2nd ed. (New York: Academic Press, 1982), p. 19.

discretion of the central bank but (as discussed in the previous chapter) resulted from the relatively steady extraction of gold by the mining industry. The quantity theory came into its own once the Federal Reserve System stopped letting what remained of the gold standard – its obligation under the Bretton Woods system to redeem dollars for gold at \$35 per ounce – constrain its expansion of the stock of dollars. When the gold constraint was officially discarded in 1971 by President Nixon, he was advised on the issue by Friedman among others. Friedman hoped that gold could be replaced by a *tighter* constraint on the stock of dollars. That hope was soon to be dashed. Money growth and price inflation kept rising.

Seeking to restore its inflation-battered reputation, the Fed under its new chairman, Paul Volcker, announced a change in monetary policy in October 1979. The monetarists' prescription for fighting inflation was that the Fed should maintain slow and steady money growth. In recognition of their ideas the Fed's policy change was labeled by journalists "the Monetarist Experiment" even though it did not really conform to monetarist proposals. Money growth became the center of the Fed's attention, and the Fed slowed it, but it remained unsteady and discretionary. Friedman commented in 1983 that the "rhetoric of the monetary authorities has indeed been monetarist, but their policies have not been – or, to be generous, have been only partly so."⁸ The Fed's tightening took a few years to turn the ship, but inflation finally fell back into single digits in 1982. After a decade of declining inflation rates, the years 1993–4 saw consecutive annual inflation rates below 3 percent for the first time since 1964–5. During the eighteen years 1993–2010 inclusive, the annualized consumer price inflation rate in the United States averaged 2.5 percent.

MILTON FRIEDMAN

Milton Friedman (1912–2006) received his bachelor's degree at Rutgers University, where he studied under Arthur Burns. Friedman has said of his own "empirical bent" that it "did not come from Chicago. Where it ultimately came from I do not know, but it was certainly strongly affected by Arthur Burns." Burns's own empirical orientation was strongly influenced by having studied under Wesley Clair Mitchell at Columbia University.⁹ Friedman

⁸ Milton Friedman, "Monetarism in Rhetoric and in Practice," *Bank of Japan Monetary and Economic Studies* 1 (October 1983), p. 1. Available online at www.imes.boj.or.jp/english/publication/mes/1983/me1-2-1.pdf.

⁹ Robert Hetzel, "The Contributions of Milton Friedman to Economics," Federal Reserve Bank of Richmond *Economic Quarterly* 93 (Winter 2007), p. 6. For Friedman's view of

received his master's degree in economics in 1933 from the University of Chicago, where he studied under Jacob Viner, Frank Knight, and Henry Simons. After an interval including depression-era work at the National Resources Committee and wartime work at the Treasury Department, both in Washington, D.C., he received his Ph.D. from Columbia University in 1946, studying under Arthur Burns again. Friedman returned to Chicago in 1946 to fill the retiring Viner's slot and taught there for the next thirty-one years. He became an emeritus professor and moved to Hoover Institution at Stanford University in 1977 and worked there for nearly another thirty years until his death in 2006.

Friedman was remarkably both an economist's economist and a public intellectual, a highly respected contributor at both the earliest and last stages of intellectual production. His technical writings, for which he received the Nobel Prize in economics in 1976, included *Essays in Positive Economics* (1953), "The Quantity Theory of Money: A Restatement" (1956), *A Theory of the Consumption Function* (1957), *A Monetary History of the United States, 1867–1960* (with Anna J. Schwartz, 1963), and *The Optimum Quantity of Money and Other Essays* (1969). His more immediate contributions to economic policy debate included *A Program for Monetary Stability* (1960), *Capitalism and Freedom* (1962), regular columns for *Newsweek* from 1966 to 1983, the ten-part PBS-TV series and book *Free to Choose* (with Rose D. Friedman, 1980), and the three-part PBS series and book *The Tyranny of the Status Quo* (1984). Friedman credited his participation in the Mont Pelerin Society with sparking his interest in addressing policy issues from a classical liberal perspective. In addition to his writings, speeches, and television appearances, Friedman advanced the case for ending the military draft as a member of the President's Commission on an All-Volunteer Armed Force (1969–70), the case for drug decriminalization as cofounder of the National Coalition for Drug Policy Change in 1993, and the case for tuition vouchers and school choice through the Friedman Foundation established in 1996. He and wife, Rose, coauthored a joint memoir entitled *Two Lucky People* (1999).

FRIEDMAN AND SCHWARTZ ON THE GREAT DEPRESSION

Friedman's embrace of the quantity theory dated to his work with Anna J. Schwartz on *A Monetary History of the United States*, a collaboration that began in 1948.¹⁰ It was Arthur Burns, as head of the National Bureau of

Mitchell's theoretical ideas see Milton Friedman, "Wesley C. Mitchell as an Economic Theorist," *Journal of Political Economy* 58 (December 1950), pp. 465–93.

¹⁰ Hetzel, "Contributions," p. 10.

Economic Research, who teamed Friedman with Schwartz. Published in 1963, their book was the single work that drew the greatest professional attention to the monetarist alternative to the Keynesian perspective on macroeconomics. Friedman and Schwartz summarized their findings as follows:

Throughout the near-century examined in detail we have found that:

1. Changes in the behavior of the money stock have been closely associated with changes in economic activity, money income, and prices.
2. The interrelation between monetary and economic changes has been highly stable.
3. Monetary changes have often had an independent origin; they have not been simply a reflection of changes in economic activity.¹¹

Economists focused especially on Friedman and Schwartz's analysis of the Great Depression. The central chapter was reprinted as a separate paperback entitled *The Great Contraction*. In the Friedman-Schwartz narrative, the key factor explaining the depth of the depression was the sharp decline in quantity of money between 1930 and 1933.¹² The M2 measure of the money stock fell by one-third between the cyclical peak in August 1929 and the trough in March 1933. Prices did not fall as rapidly as the money stock, leaving a shortage of real purchasing power that dragged down production and employment.

The money stock fell in 1930–3 because of bank runs, which took place in several waves. Friedman and Schwartz emphasized that the Federal Reserve had all the tools needed to offset the contraction of the money stock and should have done so to fulfill its assigned role as the “lender of last resort” but failed to act. They attributed the Fed's inaction to myopia, lack of experience, and internal politics. Later histories of Fed policy, by Richard H. Timberlake and Allan H. Meltzer, respectively, have emphasized the Fed's adherence to the real bills doctrine (discussed in [Chapter 3](#)). Part of the monetary contraction was due to banks' lending less and instead holding higher levels of reserves to be better prepared to meet possible future runs. Friedman and Schwartz noted that the Fed reinforced the contraction by raising its discount rate in 1931 to discourage holding of excess reserves.

¹¹ Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States, 1867–1960* (Princeton, NJ: Princeton University Press, 1963), p. 676.

¹² The monetary contraction beginning with the banking crisis of November 1930 cannot, however, explain the onset of the recession that began in July 1929. The economist Lee E. Ohanian of UCLA notes that by November 1930 industrial hours worked had already fallen by 30 percent. Lee E. Ohanian, “Herbert Hoover and the Start of the Great Depression” (19 October 2009), <http://www.voxeu.org/index.php?q=node/4105>.

The Fed raised reserve requirements in 1936 and 1937 in an effort to “soak up” the excess reserves banks had accumulated, with a like contractionary effect. That the Fed was blind to its own impact can be seen in the Fed’s explanation for its policy: “In raising reserve requirements it was not the intention of the Board to reverse the policy of monetary ease which has been pursued by the System since the beginning of the Depression.”¹³ What ease, monetarists wondered, when the money stock had shrunk rapidly for the first four years of the depression?

The Friedman-Schwartz diagnosis of the Great Depression clearly diverged from the views of Hayek, on the one hand, and Keynes, on the other. Hayek had attributed the downturn to a collapse of an unsustainable boom that had been created by the Fed’s artificially cheap credit in the years before 1929. Friedman, by contrast, thought that pre-1929 policy had been fine. If monetary policy had prevented contraction in M2, the downturn would have ushered in only a garden-variety recession. Keynes had attributed the downturn to a collapse of investment associated with pessimistic “animal spirits,” a loss of nerve by investors. For Friedman and Schwartz, investment and consumer demand continued to collapse in 1930–3 mostly because the Fed let the money stock collapse.

WAS FRIEDMAN INCONSISTENT OR DISHONEST ABOUT THE GREAT DEPRESSION?

The economist and *New York Times* columnist Paul Krugman, the 2008 economics Nobel laureate, has claimed an inconsistency between the Friedman-Schwartz historical account of the Great Contraction and the public policy lesson Friedman later drew from the episode. Friedman and Schwartz blamed the severity of the contraction on the Fed’s failure to act as lender of last resort in 1930–3. The Fed did too little. But in his popular work, Friedman suggested that the Great Contraction represented a failure of government policy in the sense that it would have been milder had the Fed not been created at all. Krugman declared that “those are contradictory positions,” the latter position even amounting to “intellectual dishonesty” in light of the former.¹⁴

To judge whether they really are contradictory, we need to ask what Friedman thought would have happened without any Federal Reserve on

¹³ Board of Governors of the Federal Reserve System, *Annual Report* (1936), p. 15.

¹⁴ Paul Krugman, “Who Is Milton Friedman?” *New York Review of Books* (15 February 2007), <http://www.nybooks.com/articles/archives/2007/feb/15/who-was-milton-friedman/>.

the scene. Friedman understood that before the Federal Reserve Act, financial panics in the United States generated responses from the regional private commercial bank clearinghouse associations.¹⁵ The Friedman-Schwartz view was that the Fed, having nationalized the lender-of-last-resort and other roles of the clearinghouse associations, did less to soften the panics of 1930–3 than the clearinghouse associations had done in earlier panics like those of 1907 and 1893 and presumably would have done had they still been active in 1930–3. Thus the economy would have suffered less had the Fed not been created. Such a view is perfectly consistent with the position that, *provided* we take the Fed's nationalization of the lender-of-last-resort role for granted, the Fed's failure to do its assigned job was harmful. If we do not take the Fed's existence for granted, then there is no inconsistency, much less dishonesty, in combining that harm assessment with the simultaneous view that creating the Fed, as it turned out, worsened the panics of 1930–3 compared to the private clearinghouse alternative.

FRIEDMAN'S CRITIQUE OF KEYNESIAN ECONOMICS

Friedman took Keynesian economics to task for ignoring the theory and historical evidence that linked inflation to excessive growth in the money stock and depression to money shrinkage. He empirically questioned the view that fiscal policy – the size of the federal budget deficit – was important for variations in the economy's output. But he accepted the aggregative spirit of the Keynesian approach. *Time* magazine in a 1965 article on Keynesian economics quoted Friedman as having said, "We are all Keynesians now," a phrase that *Time* used for the title of the article. A few weeks later he set the record straight in a letter to the editor: "The quotation is correct, but taken out of context. As best I can recall it, the context was: 'In one sense, we are all Keynesians now; in another, nobody is any longer a Keynesian.' The second half is at least as important as the first."¹⁶ Later he elaborated further: "We all use the Keynesian language and apparatus; none of us any longer accepts the initial Keynesian conclusions."¹⁷ In 1969 *Time* quoted Friedman as saying, "Keynesian economics doesn't work."¹⁸ A few

¹⁵ The key article on the topic is Richard H. Timberlake, "The Central Banking Role of Clearinghouse Associations," *Journal of Money, Credit, and Banking* (February 1984), pp. 1–15. Timberlake had been Friedman's student at the University of Chicago.

¹⁶ "The Economy: We Are All Keynesians Now," *Time*, 31 December 1965; Milton Friedman, "Friedman & Keynes," Letter, *Time*, 4 February 1966.

¹⁷ Milton Friedman, "Why Economists Disagree," *Dollars and Deficits* (New York: Prentice-Hall, 1968), p. 15.

¹⁸ "The New Attack on Keynesian Economics," *Time*, 10 January 1969.

years later he added: "I believe that Keynes's theory is the right kind of theory in its simplicity, its concentration of a few key magnitudes, its potential fruitfulness. I have been led to reject it not on these grounds, but because I believe that it has been contradicted by experience."¹⁹ In place of Keynesian theory he offered a restatement of the quantity theory of money.

THE QUANTITY THEORY OF MONEY

Irving Fisher provided a classic statement of the quantity theory of money in his book *The Purchasing Power of Money* (1911). Fisher's exposition of the theory centered on an accounting identity known as the "equation of exchange," earlier introduced by Simon Newcomb (1885).²⁰ In Fisher's simplest version, the equation was $MV = PT$, where M is the stock of currency, V is the annual "velocity of circulation" of currency, P is the price level, and T is an index of the annual volume of transactions. Velocity is the average number of times per year a unit of currency changes hands in transactions. It is defined as the ratio of PT to M , which means that the equation of exchange is true by definition of V . The product MV is the total dollar value of spending during a year. The product PT is the total dollar value of goods and services sold. The equation thus expresses the accounting identity that the amount buyers spend equals the amount sellers receive. It is a useful identity because it gives us an accounting framework against which we can check any causal macroeconomic theory for consistency.

Fisher also offered an expanded version of the equation, $MV + M'V' = PT$, where M' is demand deposits, and V' is the velocity of circulation of demand deposits. Fisher compiled data on M and M' , estimated V and V' , and developed the theory of index numbers in order to measure P better. Having a ready measure of national income but no ready way to measure total transactions in the economy, which would include everything from financial-market sales to garage sales, later quantity theorists offered a modified equation. They replaced T with purchases of *newly produced* goods and services, or in other words real national income, denoted Q or y . They

¹⁹ Milton Friedman, "Comments on the Critics," in Robert J. Gordon, ed., *Milton Friedman's Monetary Framework* (Chicago: University of Chicago Press, 1974), p. 134.

²⁰ Simon Newcomb, *Principles of Political Economy* (New York: Harper and Brothers, 1885). Before Newcomb there were still earlier algebraic statements of "quantity equations." For a rundown see Arthur W. Marget, *The Theory of Prices: A Re-Examination of the Central Problems of Monetary Theory*, vol. I [1938] (New York: Augustus M. Kelley, 1966), pp. 10–12.

correspondingly altered the concept of velocity from “transactions velocity” to “income velocity,” still denoted V .

To build an explanatory theory on the foundation of the equation-of-exchange identity, the quantity theory of money adds causal claims. The historian of economic thought Mark Blaug spelled out three key causal propositions of the quantity theory:²¹

- (1) An independent change in the nominal quantity of money M causes an equilibrating change in the level of prices P . M is determined by factors outside the theory (is “exogenous”); P is determined within the theory (is “endogenous”).
- (2) The desired ratio of money balances to income (desired M/Py , which implies an *equilibrium* value for V conceptually distinct from its *current measured* value) is determined by real factors, independent of the nominal quantity of money (except for possible transitory effects of changes in M). Irving Fisher thought in terms of measured velocity, but his contemporary Alfred Marshall at Cambridge University worked with k , equal to desired M/Py , sometimes called “Cambridge k .”
- (3) The volume of real income y is determined by real factors, independent of the nominal quantity of money (again except for possible transitory effects of changes in M).

The combination of these three propositions implies the central theoretical result of quantity theory: in the long run (once transitional processes have run their course), and *ceteris paribus* (assuming no coincidental permanent change in V or y), the price level P is proportional to the nominal quantity of money M . Money is “neutral” in the long run, which means that a change in M causes no permanent change in real variables such as V or y .

Adding to this theory the proposition that variations in velocity are typically small (because real money demand is a stable function of a few variables that vary little), quantity theorists arrive at the quantity theory’s central *empirical prediction*: the price level will proportionally follow changes in the quantity of money. Correspondingly, the average inflation rate will follow changes in the average rate of monetary expansion. In 1952 testimony to a congressional hearing Friedman identified the stability of

²¹ Mark Blaug, “Why Is the Quantity Theory of Money the Oldest Surviving Theory in Economics?” in Blaug et al., *The Quantity Theory of Money: From Locke to Keynes and Friedman* (Aldershot, UK: Edward Elgar, 1995), p. 29.

velocity as the bridge from the truism of the equation of exchange to the predictive power of the quantity theory:

I believe that the quantity equation can be defended not only as a truism, but as one of the few empirically correct generalizations that we have uncovered in economics from the evidence of the centuries. It is, of course, true that velocity varies over short periods of time. The fact of the matter, however, is that these variations, especially of income velocity, are in general relatively small. So far as I know there is no single equation that has been developed in economics that has nearly as much predictive power as this simple truism.²²

Annual growth in the U.S. money stock (as measured by the aggregates M1 and M2) continued to predict annual inflation fairly closely until the 1980s, when the annual variations in velocity measures grew larger. The predictions have since become noisier. Faster money growth nonetheless continues to be associated with higher inflation rates when averaged across decades, and when compared across countries.²³

IRVING FISHER

Irving Fisher (1867–1947), as noted in [Chapter 3](#), made a small fortune as an inventor, parlayed it into a large fortune in the stock market, then lost it in October 1929. Fisher also coauthored a best-selling self-help book, *How to Live: Rules for Healthful Living Based on Modern Science* (1915, with E. L. Fisk). In it he advocated vegetarianism and an exercise regimen. In other less innocuous writings, as noted in [Chapter 1](#), he advocated eugenics and alcohol prohibition. But Fisher's importance in the clash of economic ideas lies elsewhere, in his contributions to economic theory, particularly monetary and interest theory.

Fisher studied mathematics as an undergraduate at Yale University. He stayed on to write a doctoral dissertation on mathematical economics, receiving Yale's first-ever Ph.D. in economics in 1891. The dissertation was published as *Mathematical Investigations in the Theory of Value and Prices* (1892) and featured an early development of "indifference curves" as a tool for mapping consumer preferences. Fisher stayed at Yale as a professor of economics for the next forty-three years, retiring in 1935. In *Appreciation and Interest* (1896) he clarified the distinction between real (inflation-adjusted) and nominal interest rates. Today we call "the Fisher

²² Quoted by Hetzel, "Contributions," p. 11.

²³ Gerald P. Dwyer, Jr., and R. W. Hafer, "Are Money and Inflation Still Related?" Federal Reserve Bank of Atlanta *Economic Review* (Second Quarter 1999), pp. 32–43.

equation” the basic proposition that the nominal interest rate is composed of a real interest rate plus an inflation premium (approximately equal to the expected inflation rate), so that rising inflation means rising nominal interest rates. In *The Nature of Capital and Income* (1906) he distinguished capital as a stock from income as a flow and developed the basic concept of financial economics, the discounting of future payments to find their present value.

Fisher’s *The Rate of Interest* (1907) and its later restatement *The Theory of Interest* (1930) synthesized a neoclassical interest theory from the contributions of the Austrian economist Eugen von Böhm-Bawerk, the Swedish economist Knut Wicksell, and the less-known Canadian economist John Rae. In Fisher’s model the equilibrium interest rate is jointly determined by intertemporal preferences (the public’s degree of impatience) and intertemporal transformation opportunities (the returns to time-consuming investment). F. A. Hayek in 1941 would endorse Fisher’s exposition as “formally unimpeachable.”²⁴ Fisher’s concepts of income and intertemporal optimization provided the basis for Milton Friedman’s later theory that consumption spending depends on “permanent income,” contrary to the prevailing Keynesian view that consumption varies with transitory current income.²⁵

Fisher developed the quantity theory of money in his book *The Purchasing Power of Money: Its Determination and Relation to Credit, Interest and Crises* (1911). He credited Simon Newcomb (1885) and J. S. Mill (1848) with earlier statements of the basic ideas.

In *The Making of Index Numbers* (1922) Fisher developed the theory behind constructing and tracking a general price level and other such indexes. He also wrote two influential articles on the business cycle, “The Business Cycle Largely a ‘Dance of the Dollar’” (1923) and “The Debt-deflation Theory of Great Depressions” (1933).²⁶ After Irving Fisher but before Milton Friedman, the quantity theory was used as a foundation for price level and business cycle analysis by a number of American

²⁴ F. A. Hayek, *The Pure Theory of Capital*, ed. Lawrence H. White (Chicago: University of Chicago Press, 2008 [1941]), p. 64.

²⁵ See Robert Dimand and John Geanakoplos, “Celebrating Irving Fisher: The Legacy of a Great Economist,” *American Journal of Economics and Sociology* (2005), p.10.

²⁶ Fisher, *The Making of Index Numbers: A Study of Their Varieties, Tests, and Reliability* (Cambridge, MA: Riverside Press, 1922); Fisher, “The Business Cycle Largely a ‘Dance of the Dollar,’” *Journal of the American Statistical Association* 18 (December 1923), pp. 1024–8; “The Debt-Deflation Theory of Great Depressions,” *Econometrica* 1 (October 1933), pp. 337–57.

economists – retrospectively labeled “Old Monetarists” – prominently including Harry Gunnison Brown, Herbert J. Davenport, Arthur Marget, and Clark Warburton. In Great Britain, the interwar quantity theorists included Alfred Marshall (discussed later in this chapter), the young John Maynard Keynes, Dennis H. Robertson, Ralph Hawtrey, and Arthur C. Pigou.²⁷

HOW FAR BACK DOES THE QUANTITY THEORY GO?

Some historians of economics have cited John Locke’s essay *Some Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money* (1692) as an early statement of the quantity theory of money. Locke wrote in an era of coined silver money, not of fiat money. Though he did not write out the equation of exchange, Locke in effect argued that proportionality holds between the nominal quantity of money (M) and the price level (P) when the silver content of nominal coin is redefined. Bernardo Davanzati in *A Discourse on Coins* (1588) had made a very similar argument. For example, if the national mint calls in existing shillings, melts them down, and then mints twice as many new shillings from the silver, each new shilling containing half the silver of an old shilling, the effect will be to double shilling prices.

Such a change in the bullion weight of the money unit was the only fully exogenous way to change a country’s nominal quantity of money M (measured in shillings), causing an equilibrating proportional change in the level of prices P , under a silver standard. Other changes in the country’s quantity of money are not independent of the price level. Locke recognized, as Hume would later analyze in more detail, that traders import and export silver coins in response to changes in the supply and demand for money, endogenously changing a nation’s quantity of money.

James Mill, as we noted in the previous chapter, did try to offer a quantity-theory account of the purchasing power of silver, but Nassau Senior pointed out that the theory did not strictly apply in the case of commodity money. For the world as a whole, Senior explained, market supply (from mining) and demand (for monetary plus nonmonetary use) jointly determine the quantity and purchasing power of silver. Unlike a discretionary central bank that can supply however much fiat money it likes, the profit-seeking

²⁷ Leland B. Yeager, “New Keynesians and Old Monetarists,” in *The Fluttering Veil: Essays on Monetary Disequilibrium*, ed. George Selgin (Indianapolis: Liberty Fund, 1997), pp. 281–302.

private suppliers of silver money must respond to its purchasing power: It pays mining companies to dig deeper to produce more silver per year only when the purchasing power per ounce is high.²⁸ Theoretical exercises that begin with an exogenous change in the quantity of money M are therefore inappropriate for a commodity money system except in the case Locke analyzed. The quantity theory is not the right theory for analyzing *endogenous* changes in M and P brought about by a shift in the world supply or demand curves for silver or gold. An exogenous silver strike that enlarges the flow supply of silver will lower the purchasing power of silver, but because there is also nonmonetary demand for silver, the price level in units of silver will not be strictly proportional to the money stock in the manner derived by the quantity theory.

THE QUANTITY THEORY IN MARSHALL

Alfred Marshall, famed for developing the economist's now-familiar apparatus of supply and demand curves, provided a supply-and-demand statement of the quantity theory. Marshall's exposition was an alternative to Fisher's, but the conclusions were the same. In Marshall's "Cambridge cash balance" approach, nominal money supply meets real money demand to determine the price level. Real money demand is the demand to *hold*, on average over the course of a year, a stock of readily spendable purchasing power. If we assume that a representative individual's anticipated volume of spending is equal to his annual income, denoted y , and that money holdings are proportional to spending, we can express real money demand (labeled m^D) by the simple equation $m^D = ky$, where y is again real income. The k variable in the equation represents the portion of a year's income that the individual desires to hold on average in the form of money balances. The size of k depends on characteristics of the individual, institutional factors, and market prices, most importantly the individual's income or wealth, the convenience of paying with money relative to using substitute methods like credit, the yield on holding money relative to the interest rates available on nonmoney assets, and the expected inflation rate (which acts as a tax on holding money). Economists in the 1960s and 1970s devoted considerable effort to empirically estimating the sensitivity of money demand with respect to income, interest rates, and other factors.

²⁸ In the terms of blackboard supply and demand theory, the quantity theory of money assumes a vertical supply curve for money units, whereas the supply of silver is upward sloping. The quantity theory also assumes zero nonmonetary demand for pieces of money, whereas silver is demanded for nonmonetary uses like jewelry and candlesticks.

The higher is the dollar price level, the proportionally higher is the number of dollars that any individual needs to hold in order to have his desired amount of ready purchasing power. Thus *nominal* money demand (M^D) may be expressed $M^D = kPy$. (Uppercase indicates a nominal variable, lowercase real.) Monetary equilibrium requires that the nominal quantity demanded equals the nominal quantity supplied. Where a central bank decides at its own discretion the quantity of fiat money, we may treat the quantity supplied as independent of the price level (something we cannot do, as just noted, for a metallic money supplied by profit-seeking mining companies). We may then write the nominal supply equation $M^S = M$. In equilibrium, quantity supplied equals quantity demanded, $M^S = M^D$, so by substitution $M = kPy$, and by rearrangement $P = M/ky$. In words, the equilibrium price level is determined by the ratio of the nominal money stock to real money demand. The proportionality of P to M , *ceteris paribus* (k and y constant), follows straightforwardly. As Marshall put it: “[T]here is a certain volume of their resources which people ... care to keep in the form of currency; and, if everything else remains the same, there is this direct relation between the volume of currency and the level of prices, that if one is increased by ten per cent, the other also will be increased by ten per cent.”²⁹

MONETARISM

The research program of Friedman and his colleagues – aiming to restate theoretically, apply empirically, and enunciate the policy implications of the Quantity Theory – was coined “monetarism” by the Swiss economist Karl Brunner. The label stuck despite Friedman’s protest that “personally I do not like the term ‘monetarism.’ I would prefer to talk simply about the quantity theory of money, but we can’t avoid usages that custom imposes on us.”³⁰ An early milestone was Milton Friedman’s article “The Quantity Theory of Money: A Restatement” (1956). Other important contributors to monetarist research have included Friedman’s coauthors, particularly Anna J. Schwartz; his doctoral students at the University of Chicago; his Chicago colleague Harry Johnson; Karl Brunner of UCLA and his student and coauthor Allan H. Meltzer of Carnegie-Mellon University; staff economists at the Federal Reserve Bank of St. Louis; and other economists in the United

²⁹ Marshall, *Money, Credit, and Commerce* (London: Macmillan, 1923), p. 44.

³⁰ Milton Friedman, “Monetary Policy: Theory and Practice,” *Journal of Money, Credit, and Banking* (1982), p. 101.

States and Europe.³¹ The term “monetarism” confusingly came to be used in a second way in the United Kingdom, as a label that opponents of Prime Minister Margaret Thatcher’s policies applied disparagingly to the whole range of her economic policies.

To the quantity theory as Fisher and Marshall had left it, monetarist researchers added:

1. statistical studies of the relationship of the price level to the stock of money, and correspondingly of the rate of price inflation to the rate of monetary expansion;
2. empirical estimates of how real money demand varies with such variables as wealth or income, expected inflation, and interest rates;
3. non-Keynesian specifications of the “transmission mechanism” between money and the real economy: a change in the money stock leads to a change in the nominal aggregate demand for goods principally through the direct influence of excess or deficient money balances on spending (“money burning a hole in your pockets”), rather than through the interest rate;
4. emphasis on excess or deficient money supply, rather than (as Keynesians had it) fiscal policy or autonomous shifts in investment, as a primary cause of cyclical business expansion and recession; and
5. “natural rate” hypotheses – formalizing and testing the hypothesis of a self-righting economy – explaining the cyclical behavior of the unemployment rate and real income as a pattern of disturbance by monetary shocks followed by return to normal.

KEYNESIANS VERSUS MONETARISTS ON INFLATION, INTEREST RATES, AND BUSINESS CYCLES

Keynesians of the 1960s and 1970s attributed inflation to a variety of causes, most of them nonmonetary. A popular 1961 economics textbook by Gardner Ackley listed the following causes or types of inflation: “demand pull,” “cost-push,” “mixed demand-cost inflation,” and “markup inflation.” Other writers referred to arbitrary hikes in “administered prices” and to a

³¹ Friedman’s Chicago students included Phillip Cagan, Richard H. Timberlake, and Michael Darby; other important monetarists in the United States have included William Poole, Leland Yeager, Bennett McCallum, and J. Huston McCulloch. Peter Bernholz has been prominent in Switzerland. In Great Britain the leading contributors have been David Laidler (who moved to Canada in midcareer), Patrick Minford, and Tim Congdon.

self-feeding “wage-price spiral.”³² The Phillips curve, linking high inflation to low unemployment, soon became incorporated into Keynesian models. Keynesian writers then had an anomaly on their hands after 1969, when inflation and unemployment were high at the same time. As they interpreted the Phillips curve, rising unemployment was supposed to indicate slack demand for labor, and by holding down wage hikes it was supposed to relieve cost-push pressures on prices, resulting in low inflation.

Monetarists, by contrast, could say they had told us so. Inflation rates from the mid-1960s through mid-1980s followed money growth rates fairly closely and thereby bore out the predictions of the quantity theory. The low inflation of the late 1980s, not accompanied by high unemployment, added further evidence for the quantity theory and against the existence of any permanent Phillips curve trade-off. Few economists were left to doubt that central banks could in fact control inflation by controlling money growth, and without permanently raising unemployment. In separate contributions Friedman and Edmund Phelps of Columbia University explained in 1967–8, a few years before the seemingly stable Phillips curve broke down, why inflation and unemployment are *not* linked in the long run. Once high inflation comes to be expected, job searchers will not be misled by higher dollar wage offers into searching less, so the ratio of job searchers to the labor force – the unemployment rate – will resume its normal level. J. Bradford De Long has observed that “monetarism rose to its peak of intellectual influence as Milton Friedman’s and Edward Phelps’s prediction that the stable short-run Phillips curve would break down was made just in time to be proven spectacularly correct by the economic history of the 1970s.”³³

The interest rate played a smaller role in the macroeconomic theories of the monetarists than in those of either the Keynesians or the Austrians. In the Keynesian textbooks of the 1970s, an increase in the money supply affects income insofar as it lowers the interest rate, which (perhaps weakly) raises investment, with multiplier effects on aggregate income. For monetarists, the equilibrium real interest rate is determined by the supply of savings and the demand for investment, as explained by Irving Fisher. The real rate is not a monetary phenomenon. A permanent change in the level of the nominal money supply ultimately has no effect on the real interest rate, because such a change permanently affects only other nominal variables.

³² Hetzel, “Contribution,” p. 8.

³³ Milton Friedman, “The Role of Monetary Policy,” *American Economic Review* 58 (March 1968), pp. 1–17; Edmund S. Phelps, “Phillips Curves, Expectations of Inflation and Optimal Unemployment over Time,” *Economica* 34 (August 1967) pp. 254–81; J. Bradford DeLong, “The Triumph of Monetarism?” *Journal of Economic Perspectives* 14 (Winter 2000) p. 90.

Any effect of monetary expansion in lowering the interest rate, by creating an excess supply of money that spills over into an increase in the supply of loanable funds, is transitory and assumed to be inconsequential for the macroeconomy. Unlike Austrian accounts of the business cycle, monetarist accounts assign no important knock-on effects to pushing the market rate of interest below the equilibrium rate.

Keynesians normally attributed downturns in the economy to unstable investment or consumption demand. Monetarists, by contrast, normally attributed downturns to inept monetary policy that created an excess (unsatisfied) demand for money. The central bank can create an excess demand for money either by shrinking the money stock (or letting banks and the public reduce M when monetary policy could readily keep it stable, as in 1930–3) or by years of expansionary monetary policy giving an inflationary trajectory to prices such that a slowdown in money growth (below the rate at which prices are rising) causes the real stock of money (M/P) to fall.

Keynesians have emphasized “sticky” prices and wages as a reason why falling nominal demand for goods reduces employment and real output. Monetarists held that prices and wages can and will adjust appropriately to reach equilibrium, though Friedman and earlier writers recognized that the adjustment would not happen instantly. The gradual-adjustment “Old Monetarist” view was actually fairly close to what is now called the “new Keynesian” view of the importance of price stickiness. “New classical” economists of the 1980s and 1990s, by contrast, took the position that macroeconomic models, in order to be rigorously specified, must assume that market-clearing prices and wages always prevail.³⁴

Keynesians advised government to conduct an active countercyclical policy, through both fiscal and monetary actions, applying stimulus whenever the economy is performing below its potential. This advice followed Keynes’s reading of the Great Depression as evidence that without corrective policy the economy will get stuck below its potential because self-correcting market forces are too weak to remedy the situation promptly. Monetarist policy proposals, by contrast, favored monetary policy *rules* over activism. The first job of policy makers was to do no harm, or in Friedman’s words to “prevent money itself from being a major source of economic disturbance.”³⁵ The monetarist case for nonactivism grew from

³⁴ Kevin Hoover, “Two Types of Monetarism,” *Journal of Economic Literature* 22 (March 1984), pp. 58–76.

³⁵ Friedman, “Role of Monetary Policy,” p. 12.

Friedman's reading of a longer sweep of history: activist monetary policy in practice had done more to amplify than to dampen swings in the economy. To do the least harm, Friedman advised, the central bank should pursue, and be committed to pursuing so that the public knows what to expect, a monetary policy of modest and steady monetary expansion.³⁶

Monetarist business cycle theory gave monetary policy some *potential* scope to moderate recessions, but the monetarist reading of history indicated that this potential had not been and likely would not be realized in practice, so long as central bankers' ability to forecast remained no greater than that of private-sector decision makers. The potential contribution can be expressed in terms of the equation of exchange $MV = Py$. Suppose the velocity of money (V) drops. The central bank can avert a drop in nominal aggregate spending (MV) if it can increase the money stock (M) in a timely and offsetting manner. Averting a drop in nominal aggregate spending would be beneficial because (unless fully anticipated and matched by simultaneous price cuts) the drop will leave goods unsold on the shelves, leading to reduced factory orders. The economy will fall into a recession with real output dropping below its sustainable level. Successful countercyclical policy requires the central bank to stabilize MV by offsetting changes in V with well-timed and correctly sized changes in M .³⁷

Success at countercyclical policy is not achieved in practice, Friedman warned, when the central bank does not correctly forecast velocity changes and alters money growth at the wrong time or to the wrong extent. Changes in money growth affect nominal income, in a phrase Friedman made famous, with "a long and variable lag." Poor timing is all but guaranteed if the Fed does not respond until a recession or inflation has already arrived. A poorly timed or poorly sized stop-go monetary policy amplifies rather than dampens swings in the economy above and below full employment, and such amplification – Friedman found – was evident in the record of Federal Reserve policy. Historical periods of slower money growth were not periods of stable nominal income, when monetary policy served to offset higher velocity growth, as a successful stabilization policy would imply. Rather, they led the economy into recessions.

³⁶ Friedman, *A Program for Monetary Stability* (New York: Fordham University Press, 1960).

³⁷ In terms of the standard textbook apparatus of aggregate supply and demand, a drop in velocity shifts the aggregate demand curve inward, causing a downward movement along the short-run aggregate supply curve, which means some reduction in prices and output below its "natural rate" or "full employment." An appropriate increase in the money stock restores the aggregate demand curve to its former position.

RULES FOR MONETARY POLICY

Friedman seldom just gave the Federal Reserve advice on how fast it should expand the money stock in the current situation, or at what level (following its usual targeting technique) it should now set the interest rate in the interbank market. He focused on the big picture: improvements in technique and constitutional reforms of the policy-making regime. Through his career, he progressed through three main recommendations (putting aside a premonetarist 1948 suggestion to gear money growth to the government budget deficit). In *A Program for Monetary Stability* (1960) and *Capitalism and Freedom* (1962) Friedman formulated the policy rule for which he became well known: Establish a constant and slow rate of growth in the fairly wide M2 measure of the money stock, month in and month out, at a rate calibrated to produce a zero inflation rate on average. He sometimes said that the rule aimed to replace the Federal Open Market Committee (FOMC) with a robot. In the 1969 article "The Optimum Quantity of Money" Friedman made a technical case for the theoretical desirability of mild deflation (at perhaps 2 percent per year) so that the nominal rate of interest on short-term risk-free bonds would be zero, reducing the public's opportunity cost of holding fiat money to its zero cost of production, but he never pushed this idea in his popular writings. In 1984 and later writings he called for simply freezing the Fed's monetary liabilities, a 0 percent growth rule for the narrow M0 monetary aggregate. Such a rule would entirely eliminate the Federal Reserve from conducting a monetary policy. The FOMC could be sent home. Each of these three proposals is discussed in more detail in the following paragraphs.

At a time when most economists favored the status quo of an activist monetary policy aimed at stabilizing the macroeconomy, with the traditional alternative (at least within the Mont Pelerin Society) being a return to the stricter classical gold standard, Friedman staked out a third position: directly constraining the central bank's issue of paper money without a golden anchor.

Why not gold? Making a central bank back its paper money with precious metal in its vault, Friedman argued, was a needlessly expensive way of limiting its money issues. He estimated (assuming 100 percent gold reserves against M2) that the resource cost of maintaining a pure gold standard in a normally growing economy amounts to 2.5 percent of national income.³⁸

³⁸ For the argument that Friedman's estimate is 50 times too high because it is based on 100 percent gold reserves against M2 rather than the historically more reasonable figure of 2

Furthermore, for a large economy like the United States, where international trade and investment flows are relatively small, the potential benefits of a fixed exchange rate (as provided by an international gold standard) are small, relative to the drawbacks of having the domestic quantity of money vary with external money supply and demand shocks.

Why not pursue a stabilization policy? In Friedman's view it simply had not worked: "Experience and not theory has demonstrated ... that monetary policy is not an effective instrument for achieving directly either full employment or economic growth."³⁹ The economy does not get persistently stuck below full employment; nor can it be permanently maintained above full employment. No trade-off between inflation and unemployment exists in the long run. Rather, as Friedman argued along with Edmund Phelps, adjustments in wage expectations by job seekers restore the "natural rate" of unemployment after disturbances. Expansionary monetary policy can inflate any nominal variable (the price level, nominal income, the exchange rate). But showering paper money on the economy cannot permanently reduce unemployment or boost real growth. It can *disturb* real variables away from their natural levels, but such disturbances are not helpful.⁴⁰

Friedman's 1960 prescription for slow and steady money growth is sometimes known as "the k percent rule" to emphasize the steadiness of money growth (k is to be constant). Because the rule gives up attempting to offset variations in the velocity of money, the monetary aggregate with the most stable velocity is the appropriate target. The evidence of 1959 indicated that M2 (currency held by the public plus checkable account balances plus savings account balances) had the most stable velocity. What value of k ? As a focal point, Friedman suggested the value consistent with zero secular inflation, for example, 4 percent in an economy with real income secularly growing at 3 percent and velocity secularly falling at 1 percent. But he emphasized that agreement on the steadiness of money growth is more important than exactly which rate of growth or which measure of money.

To make M2 grow at 4 percent per year, the Fed would expand M0 (the aggregate that it directly controls because it consists entirely of the Fed's own currency and bank reserve liabilities) at 4 percent, plus or minus whatever adjustment in M0 was needed to offset variation in the ratio of M2 to M0. To make M2 growth easier to control, Friedman offered three

percent reserves, see Lawrence H. White, *The Theory of Monetary Institutions* (Oxford: Basil Blackwell, 1999), pp. 42–8.

³⁹ Milton Friedman, "Monetary Policy: Theory and Practice," *Journal of Money, Credit, and Banking* 14 (February 1982), p. 100.

⁴⁰ Friedman, "Role of Monetary Policy," p. 12.

noteworthy suggestions. First, eliminate gold redemption of dollars, a channel through which foreign central banks could reduce or increase M_0 in the United States. Second, eliminate the Fed's policy of lending to banks at their request, a channel through which banks could expand M_0 at their own initiative. Closing the discount window would eliminate the Fed's discretion to lend reserve funds to particular banks deemed worthy. Thus it would eliminate the Fed's option, controversially used in the 2007–8 financial crisis, of aiding “too big to fail” and otherwise favored banks (and even non-bank financial firms), even some that were insolvent, but not other banks. It would not eliminate the Fed's ability to provide reserves to the banking system as a whole in times of high reserve demand, because the Fed could still provide reserves by purchasing Treasury bonds. The additional bank reserves provided through bond purchases would be allocated to banks deemed creditworthy by the interbank loan market, rather than allocated by the Fed at its discretion. Third, anticipating a reform that the Fed adopted in October 2008, Friedman recommended that the Fed pay competitive interest on bank reserves held at the Fed. If the interest on reserves shadowed the interest on Treasury bonds that banks also held, then the opportunity cost (forgone yield) of holding reserves would not change as the Treasury bond yield varied. As a result the banks' desired ratio of reserve holdings to M_2 deposits would not vary, and the Fed could more easily target M_2 through operations that control the quantity of reserves.

In 1981, after more than twenty years of recommending that the Fed commit itself to slow and steady money growth, Friedman gave an invited lecture in which he pondered why the Fed had ignored the advice. He noted that when Congress required the Fed to announce targets for money growth and to report every six months on how well it had met them, the Fed had given wide and shifting target *ranges* for five *different* monetary aggregates, refusing to commit itself to a specific growth path for a single monetary aggregate. The Fed insisted on having the discretion to pursue highly variable money growth, he surmised, because the bureaucratic self-interest of central bank officials lies in avoiding accountability.⁴¹

Because the Fed could not be expected to embrace any strict self-restraint in monetary policy, Friedman in 1984 began offering a proposal to eliminate discretionary policy at its root. He recommended freezing the monetary base M_0 and simply eliminating the Federal Open Market Committee, a very special case of the k percent rule. To meet seasonal and other swings in the public's desire to hold currency (which alter the ratio of M_2 to M_0),

⁴¹ Friedman, “Monetary Policy: Theory and Practice,” pp. 114–6.

he proposed to let commercial banks once again issue currency notes. In his 1960 book Friedman had supported government monopoly of currency issue on the grounds that fraud was endemic in private note issue, but in the 1980s he noted new historical research to the contrary and changed his mind on that question.⁴² It is true that, as a writer in the *University of Chicago Magazine* recently commented, “Friedman was not some Ayn Rand acolyte yelling that the Federal Reserve should be abolished.”⁴³ But after 1984 he was quietly making a practical case for the prudence of abolishing the Fed’s monetary policy committee.

Although Fed officials never welcomed a commitment to slow and steady money growth, other economists warmed to the idea during the inflationary 1970s. Enthusiasm for a strict k percent rule faded in the 1980s, however, as the velocity of M1 and M2 became much less stable. Tying the Fed’s hands so that it could not offset velocity variations now implied greater instability in aggregate spending. Bennett McCallum proposed a modified k percent rule in which the money growth rate is not held constant but is instead adjusted according to a formula that offsets changes in the trend of measured velocity.⁴⁴ A likely contributing factor to measured velocity’s going off its previous track was the deregulation of interest on bank accounts. If so, then the adoption of a banking reform that Friedman supported ironically undermined the case for the monetary reform he had supported to that point.

AUSTRIANS VERSUS MONETARISTS ON BUSINESS CYCLE THEORY

Pre-Keynesian monetary theorists like Wicksell, Mises, and Hayek (see [Chapter 3](#)) attributed business cycle booms and busts to discrepancies

⁴² See Milton Friedman and Anna Schwartz, “Has Government Any Role in Money?” *Journal of Monetary Economics* (1986). A key contributor to the new findings on private currency issue was Friedman’s doctoral student Hugh Rockoff in his dissertation, *The Free Banking Era: A Reexamination*.

⁴³ Michael Fitzgerald, “Chicago Schooled: The Visible Hand of the Recession Has Revitalized Critics of the Chicago School of Economics” (September–October 2009), http://magazine.uchicago.edu/0910/features/chicago_schooled.shtml. Ayn Rand was a best-selling novelist and philosopher who attracted many followers to her ethical case for minimal government based on rational egoism, or what she provocatively called “the virtue of selfishness.”

⁴⁴ Bennett T. McCallum, “Monetarist Rules in the Light of Recent Experience,” *American Economic Review*, 74 (May 1984), pp. 388–91; McCallum, “The Case for Rules in the Conduct of Monetary Policy: A Concrete Example,” Federal Reserve Bank of Richmond *Economic Review* (September/October 1987), pp. 10–18; McCallum, “Robustness Properties of a Rule for Monetary Policy,” *Carnegie-Rochester Conference Series on Public Policy* 29 (Autumn 1988), pp. 173–203.

between saving and investment plans. Central banks could cause such discrepancies because their injections and withdrawals of money have spillover effects driving the market interest rate away from the “natural” rate that coordinates desired saving with desired investment. Monetarists (including predecessors like Irving Fisher and successor new classical theorists like Robert E. Lucas, Jr.), while agreeing that central banks are the main source of trouble, have viewed the transmission of business cycles differently. They have disregarded movements in interest rates on the empirical grounds (for which their evidence was somewhat casual) that monetary policy cannot move the market rate from the natural rate far enough or long enough to have serious effects on investment. Instead the key disturbance was a discrepancy between the quantities of money balances supplied and demanded. An excess supply of money drives spending above (or an excess demand for money drives spending below) its expected value and thereby, via wage stickiness or misperceptions of real wage offers, has employment effects that drive real income away from its natural rate.

Friedman in 1968 summarized how monetary expansion can generate a temporary bulge in employment and output, as the spending of excess money balances increases in the nominal demand for goods and services, with effects on the labor market:

Because selling prices of products typically respond to an unanticipated rise in nominal demand faster than prices of factors of production, real wages received have gone down – though real wages anticipated by employees went up, since the employees implicitly evaluated the wages offered at the earlier price level. Indeed, the simultaneous fall *ex post* in real wages to employers and rise *ex ante* in real wages to employees is what enabled employment to increase.⁴⁵

The employment increase of the boom can be pictured in Figure 12.1 as the movement from point *A* to point *B* along a short-run Phillips curve.

Friedman added: “But this situation is temporary” because “perceptions will adjust to reality.” The short-run Phillips curve shifts up, returning the market from the unnaturally low unemployment rate of point *B* to the natural rate of unemployment at point *C*. In emphasizing that employment and output effects are transitory, Friedman reaffirmed the quantity theory proposition that real variables are independent of the nominal quantity of money in the long run. John Gurley offered an appropriate aphorism for Friedman’s overall view: “Money is a veil. But when the veil flutters, real output sputters.”⁴⁶

⁴⁵ Friedman, “Role of Monetary Policy,” p. 10.

⁴⁶ John Gurley, Review of *A Program for Monetary Stability* by Milton Friedman, *Review of Economics and Statistics* 43 (August 1961), pp. 307–8.

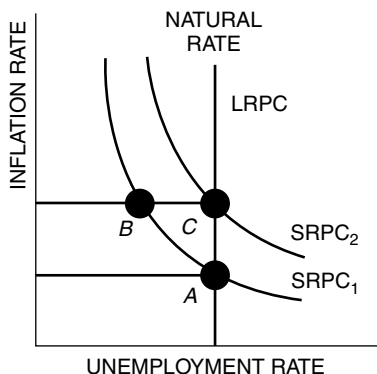


Figure 12.1. Long-Run and Short-Run Phillips Curves.

FRIEDMAN THE MARSHALLIAN VERSUS LUCAS THE WALRASIAN

Milton Friedman's approach to monetary theory was Marshallian, not Walrasian.⁴⁷ That is, he did not embed his cyclical labor market story in an explicit general equilibrium framework where optimization and equilibrium always prevail. In a series of influential papers during the 1970s, Robert E. Lucas, Jr., did. Having received a Ph.D. from the University of Chicago in 1964, Lucas joined the Chicago faculty in 1974, just three years before Friedman's departure, and in that sense succeeded him as the leading monetary theorist in the department. Lucas provided a more mathematically rigorous exposition of the monetarist view that monetary policy can be disruptive in the short run while neutral in the long run. When the interviewers Brian Snowdon and Howard R. Vane (1998) asked Lucas, "Why did [Friedman's] methodological approach not appeal to you?" Lucas responded: "I like mathematics and general equilibrium theory. Friedman didn't. I think he missed the boat [*laughter*]."⁴⁸

THE LEGACY OF MONETARISM

The "new classical" macroeconomics developed by Lucas and others in the 1970s and 1980s began as a strong form of monetarism. For the sake of

⁴⁷ Kevin Hoover, "Two Types of Monetarism."

⁴⁸ Brian Snowdon and Howard R. Vane, *Modern Macroeconomics: Its Origins, Development and Current State* (Cheltenham, UK: Edward Elgar, 2005), p. 286.

mathematical rigor it banished what it regarded as loose talk about markets out of equilibrium and ad hoc “frictions” in price and wage setting. It turned out to be difficult to reconcile general equilibrium models with the idea that money supply shocks can generate business cycles. After all, in a frictionless economy with rational expectations, what stops the public from observing changes in the money supply, immediately adjusting prices accordingly, and thus neutralizing any real impact of nominal changes? Empirically, attempts to quantify the importance of monetary shocks using new-classical models found that, in Lucas’s words, “there is no way to get monetary shocks to account for more than about a quarter of real variability in the post-war era. At least no one has found a way of doing it.”⁴⁹ The new classical research program, plus this negative empirical result, gave rise to the view that fluctuations around the economy’s secular growth trend (no longer appropriately called “cycles”) must largely represent responses to real shocks, not to monetary shocks. The development of “real business cycle theory” has been led by Finn Kydland and Edward C. Prescott, whose joint work was recognized by the 2004 Nobel Prize committee.

What has become of old-school monetarism? While monetarist analytical propositions like the natural rate hypothesis and the quantity-theoretic account of inflation are now accepted by most economists, monetarist policy proposals in the form of the k percent rule were largely abandoned in favor of inflation targeting proposals. The analytical debate shifted to a clash between new classicals and new Keynesians. Irony of ironies, on several issues old-school monetarists found themselves on the side of the “new Keynesians.”⁵⁰ In particular, new Keynesians were more likely than new classicals to agree that (1) cyclical booms and busts represent disequilibrium movements away from the economy’s secular growth path rather than shifts in the path; (2) macroeconomic disequilibria do not vanish instantly because adjustment lags and frictions matter; and (3) monetary policy has the power to dampen or amplify business cycles. New classicals, however, shared with old-school monetarists the view that useful macroeconomic policy analysis focuses on the properties of alternative policy-making rules or regimes, not on how to respond to the latest fluctuation.⁵¹

⁴⁹ Ibid., p. 279.

⁵⁰ See Yeager, “New Keynesians and Old Monetarists,” pp. 281–301.

⁵¹ This list is a version of the five-point list in DeLong, “Triumph of Monetarism?” trimmed to remove questionable parts of the original list.

The Growth of Government: Public Goods and Public Choice

In 1959, Ronald Coase entered the Chicago home of Aaron Director for what was to be an unusual dinner party. The host and other guests were a who's who of University of Chicago economists, including Milton Friedman, George Stigler, Arnold Harberger, John McGee, and fifteen others. The British-born and soft-spoken Coase, an economics professor at the University of Virginia, was in town to present a new paper at the university. In an earlier paper on the regulation of radio by the Federal Communications Commission, just published in the *Journal of Law and Economics*, Coase had made an argument that the Chicago crowd considered interesting but erroneous. The dinner was arranged to give Coase the chance he had requested to convince the skeptics that his argument was correct.

In his published paper Coase argued that participants in a competitive market economy can reach an efficient allocation of resources even when neighboring activities clash, or in current jargon they can "internalize" what would otherwise be "negative externalities," by making mutually agreeable side payments. In the case of a doctor's examination room bothered by a noisy candy factory next door, the doctor and confectioner can bargain to an efficient mix of respective operating hours. And not only can the market reach *an* efficient allocation, but it will reach the *same* efficient allocation no matter which way (e.g., to the doctor or to the confectioner) the law initially assigns the rights in dispute or conversely assigns the liability for damages caused by the clash, assuming negligible transaction costs and profit-maximizing behavior. Stigler labeled this proposition "the Coase theorem." In the case of potential interference among radio broadcasters, the main topic of Coase's 1959 paper, a system of tradable private property rights in distinct broadcast frequencies will allow competing broadcasters to avoid wavelength interference and to reach the efficient mix of station

formats (news, talk, various types of music). No top-down assignment of licenses was necessary.

As editor of the *Journal of Law and Economics*, Director had suggested that Coase remove the “Coase theorem” claim from his article, but Coase had stuck to his guns, and Director had let it appear in print. The stage was set for the after-dinner debate. George Stigler recalled the event:

We strongly objected to this heresy. Milton Friedman did most of the talking, as usual. He also did much of the thinking, as usual. In the course of two hours of argument the vote went from twenty against and one for Coase to twenty-one for Coase. What an exhilarating event! I lamented afterward that we had not had the clairvoyance to tape it.¹

Coase’s own recollection in a 1997 interview was consistent with Stigler’s, although the debate apparently passed more quickly for the man on the hot seat. He guessed that one hour had passed rather than two:

I said I’d like to have an opportunity to discuss my error. Aaron Director arranged a meeting at his home. Director was there, Milton Friedman was there, George Stigler was there, Arnold Harberger was there, John McGee was there – all the big shots of Chicago were there, and they came to set me right. They liked me, but they thought I was wrong. I expounded my views and then they questioned me and questioned me. Milton was the person who did most of the questioning and others took part...

This meeting was very grueling for me. I don’t know whether you’ve had a conversation with Milton Friedman, but an argument with Milton Friedman is a pretty strenuous affair. He’s very good. He’s very fair, but he doesn’t let you slip up on anything. You’re constantly being pressed. But when at the end of whatever the time was – say, an hour – I found I was still standing, I knew I’d won. Because if Milton can’t knock you out in a few rounds, you’re home.²

The dinner party discussion was the catalyst for a follow-up article that was largely responsible for Coase’s receiving the Nobel Memorial Prize in Economic Sciences in 1991. After winning over his dinner-party critics, Coase was asked to write up his argument in greater detail. The result was “The Problem of Social Cost,” an article that, as Coase rightly noted in his Nobel autobiography, “was an instant success. It was, and continues to be, much discussed. Indeed it is probably the most widely cited article in the whole of the modern economic literature.”³

¹ George J. Stigler, *Memoirs of an Unregulated Economist* (Chicago: University of Chicago Press, 2003), p. 76.

² Interview with Tom Hazlett in *Reason* (January 1997), <http://reason.com/archives/1997/01/01/looking-for-results>.

³ Ronald Coase, “Autobiography” (1991), http://nobelprize.org/nobel_prizes/economics/laureates/1991/coase-autobio.html?print=1.

THE POSTWAR GROWTH OF GOVERNMENT

At the beginning of the postwar period in the United States, after the demilitarization following the Second World War, the federal government's budget took up about 14 percent of national output. Over the next sixty years that share rose by half to about 22 percent. In 2009, largely because the 2007–9 recession reduced GDP, the share jumped to 24.7 percent from 20.7 percent in the previous year. It remained close to 24 percent for the next two years of slow recovery. Over the same sixty-year period the GDP share taken up by American state and local government budgets more than doubled, rising from a little less than 4 percent to about 9 percent. Adding state and local to federal, we see that total government spending in the United States has risen markedly as a share of GDP since the immediate postwar years: then about 18 percent, more recently about 31 percent of GDP.⁴ In the United Kingdom, the national government then took up 39.3 percent and more recently took up 44.1 percent of GDP.⁵

To note this growth is not to prejudge whether government has grown much too large, has always been ideal, or has remained too small. Economists span the range of views. John Kenneth Galbraith argued in *The Affluent Society* (1958) that governments in the United States were too small given the levels of private income and urbanization: amid a “plentitude of private goods” the nation and its cities were “poverty-stricken in our public services.” It might be noted that when Galbraith wrote, the ratio of state and local government spending (not including transfer payments) to private spending (GDP minus government spending) had just risen 26 percent (between 1950 and 1957). The complaint remained in the book's updated fortieth anniversary edition, even though the government-to-private spending ratio had risen another 30 percent (1997 over 1957). Slicing the data

⁴ The average of federal outlays as a share of GDP for the five fiscal years 1947–51 inclusive was 14.1 percent. The corresponding average for 2006–9 and 2010 (est.) was 22.1 percent. Source: Office of Management and Budget historical tables at <http://www.whitehouse.gov/omb/budget/Historicals>. Data on U.S. state and local spending from the Excel file accompanying Matthew Mitchell, “State and Local vs. Private Sector Spending: Multiples of Base Year 1950, Inflation-adjusted” (16 August 2010), Mercatus Center at George Mason University, <http://mercatus.org/publication/state-and-local-vs-private-sector-spending>. For an overview of the data (through 2004) and theories of government growth see Thomas A. Garrett and Russell M. Rhine, “On the Size and Growth of Government,” Federal Reserve Bank of St. Louis *Review* 88 (January/February 2006), pp. 13–30.

⁵ “Then” for the United Kingdom is an average of 1947–8 through 1951–2 fiscal years; “more recently” is 2006–7 through 2010–11. Source: “Historic Government Spending by Area: Get the Data Back to 1948,” Data blog, [guardian.co.uk](http://www.guardian.co.uk) (18 October 2010), <http://www.guardian.co.uk/news/datablog/2010/oct/18/historic-government-spending-area#data>.

another way, real (inflation-adjusted) state and local government spending rose 9.7-fold between 1950 and 2009 while private spending rose 5.2-fold.⁶

Budgetary figures do not tell the whole story about the widening scope of government. Government regulation has effects on economic allocation, and creates compliance expenses for private firms, that do not show up in the government budget. An indirect measure of the extent of federal regulation in the United States is the size of the *Federal Register*, the repository for regulatory edicts. The first *Federal Register*, issued in 1936 under Franklin Roosevelt, ran 2,060 pages. The 2010 *Federal Register* runs more than 80,000 pages.

The two leading postwar economic theories of the public sector, both of them attempting the dual tasks of explaining the actual and prescribing the proper scope of government, are *public goods* theory and *public choice* theory. A brief summary will introduce them, with detailed discussion later.

The theory of public goods, pioneered by Paul Samuelson, views government as a faithful agent hired by the citizenry to provide desired goods and services having characteristics such that the market economy provides too little of them. Taxpayers limit the scope of government to the set of activities they are willing to pay for. Government expands when the citizens demand a wider range of governmental activities. Economists who seek to explain the growth of government by changing taxpayer demand have commonly proposed that the demand for public goods grows more than in proportion to real income, and that is why government has grown faster than the private economy.⁷

Public choice theory, pioneered by James M. Buchanan and Gordon Tullock, allows that government programs often have losers (taxpayers for whom the burden exceeds the benefit) as well as gainers. (Milton Friedman identified the gainers as an “iron triangle” of special interests, bureaucrats, and elected officials.)⁸ For example, suppose an automobile import quota

⁶ John Kenneth Galbraith, *The Affluent Society* (New York: Houghton Mifflin, 1958), p. 270. Galbraith, *The Affluent Society*, 40th anniversary edition (New York: Houghton Mifflin, 1998), p. 200. Spending data again from Mitchell, “State and Local vs Private Sector Spending.”

⁷ For example, Theodore C. Bergstrom and Robert P. Goodman, “Private Demands for Public Goods,” *American Economic Review* 63 (June 1973), pp. 280–96. The authors treat an estimate of the relationship between local government spending and local private income as an estimate of the income elasticity of demand for public goods. They explicitly assume (p. 281) that “the quantity of municipal commodities chosen by any community is the amount which is desired by the consumer with the median income for that community.”

⁸ Milton Friedman and Rose D. Friedman, *The Tyranny of the Status Quo* (New York: Penguin, 1985).

raises the average car price by two hundred dollars. The higher price burdens consumers but benefits domestic automakers. The total value of consumer losses exceeds the value of automaker gains (potential car buyers who are priced out of the market suffer losses for which there are no corresponding automaker revenue gains), and yet the losers are unable to block the program because the gainers are more influential. In this view the scope of government is determined by a contest between taxpayers and a set of government beneficiaries. Government grows as its beneficiaries find ways to outmaneuver the interest of the taxpayers.

The proper scope of government is of course a topic that has engaged political theorists for centuries. Political science and philosophy professors commonly ask their students to write papers pitting the views of Thomas Hobbes against those of John Locke, Alexander Hamilton against Thomas Jefferson, John Rawls against Robert Nozick. For economists' views it is natural to begin with Adam Smith.

WHAT ARE THE DESIRABLE ROLES OF GOVERNMENT IN THE ECONOMY?

Adam Smith in *The Wealth of Nations* (1776, book V, chapter 1) assigned government three duties: national defense, civil justice, and providing public works. The last is basically what economists today call the provision of public goods. In Smith's words:

The third and last duty of the sovereign or commonwealth is that of erecting and maintaining those public institutions and those public works, which, though they may be in the highest degree advantageous to a great society, are, however, of such a nature that the profit could never repay the expense to any individual or small number of individuals, and which it therefore cannot be expected that any individual or small number of individuals should erect or maintain.⁹

The underlying principle here is that government should step in – when private entrepreneurs will not – to finance the production of any good for which the expense is less than the social value. If the social value of a good is the sum of what all users would be willing to pay for use of it, why are not private entrepreneurs selling the valued goods in order to grasp the potential profits? There must be some barrier to their collecting actual payments close enough to what users would be willing to pay. Framing the

⁹ Adam Smith, *The Wealth of Nations*, 5th ed. (London: Methuen, 1904), p. 214.

problem this way invites the question, what is it about a good or service that might render it infeasible for entrepreneurs to get willing users to pay enough for it? Adam Smith did not explore the question this way but went on to list what he thought were obvious examples of such goods: highways, harbors, bridges, canals, and post offices. The curious thing about his list is that not one of these goods seems to satisfy the underlying principle. All five goods can be and have been successfully provided on a user-pays basis. Highway, bridge, and canal operators, both public and private, charge tolls. Harbor owners charge for docking. Post offices charge for letter and package delivery.

Smith also accepted certain forms of government regulation, for example, a building code requiring firewalls to prevent the spread of fire from one attached building to the next. He endorsed restrictions he thought would play an analogous role to prevent spillover effects in banking.

The neoclassical economic analysis of the question of government's proper role in providing goods and services can be seen as an elaboration of Smith's criterion for public works. Do private entrepreneurs decline to provide a certain good even when (it is hypothesized) the aggregate willingness to pay of beneficiaries exceeds the expense? If so, the market does not capture all of the potential gains from production and trade. The market outcome is inefficient. Gold coins are being left on the table. If production of the good can be financed by precisely calibrated taxes, such that no taxpayer has to pay more in taxes than his or her underlying willingness to pay for the good, then tax-financed provision of the good can provide net gains for every taxpayer-user. Taxpayer Jones, in her own estimation, enjoys benefits from the good greater than the tax she pays. She would rather get the good without paying the tax, of course, but she prefers that everyone pays to provide the good rather than that nobody is taxed and the good is not provided.

The normative benchmark here, a state of affairs in which all potential gains from voluntary trade are captured, is known as "Pareto efficiency" or "Pareto optimality" after the Italian economist Vilfredo Pareto. A good or service is said to be subject to "market failure" when private transactions fail to achieve Pareto efficiency in its provision. The challenging claim made by public goods theory is that in an important set of cases, those of public goods, there is potentially a *Pareto-improving* role for government. There is scope for government to play a role to which *all of us* would agree, even taxpayers who foot the bill. The benefits equal or exceed the costs for each of us, making some better off and nobody worse off as each of us sees it. The

theory argues that when it comes to providing a public good, as the philosopher-economist David Schmidtz puts it, “we all *want* the government to force each of us to contribute and thereby make us better off.”¹⁰

This brief sketch of the public-goods argument raises many questions, some of which will be explored later in this chapter. An important caveat to the argument arises from the public-choice perspective, namely that the distinction between ideal and actual markets has its parallel in a distinction between ideal and actual governments. A *potential* Pareto improvement by government does not guarantee a *realized* Pareto improvement when the government acts. We should not take the approach of the judge in a singing contest who, after hearing the flawed performance of the first contestant, immediately awards the prize to the second contestant without hearing her sing. Government failure may be worse than market failure.

VILFREDO PARETO

Born in 1848, Vilfredo Pareto studied mathematics and engineering in Torino, Italy, then managed a railway and ran a steelworks. He was drawn into economics in his forties after becoming an ardent classical liberal pamphleteer. A fellow liberal, the prominent Italian economist Maffeo Pantaleoni, befriended Pareto and introduced him to economic theory. Already trained in mathematics, Pareto embraced the mathematical general equilibrium theory of Leon Walras. A quick learner, he soon began publishing technical articles in Italy’s leading economics journal despite his lack of academic standing. On Pantaleoni’s recommendation, Walras in 1893 surprisingly chose Pareto as his successor in the economics chair at the University of Lausanne, Switzerland.

Pareto’s two great works in economics were the three-volume *Cours d’économie politique* (1896–7), basically his Lausanne lecture notes, and *Manual of Political Economy* (1906). In the latter work he provided the most systematic statement of neoclassical price theory to date, organized around the concepts of individual optimization and market equilibrium. Through production and market exchange, an individual maximizes her “*ophelimity*” (attains her most preferred combination of goods) subject to her initial endowment. *Ophelimity* was Pareto’s name for the ordinal preference-ranking indicator also called “utility.” The new label was intended to

¹⁰ David Schmidtz, *The Limits of Government: An Essay on the Public Goods Argument* (Boulder, CO: Westview Press, 1991), p. 2.

avoid the confusion between the *choice-theoretic* utility of economics and the pleasure-minus-pain or *hedonic* utility of Jeremy Bentham's utilitarianism.

In an ideal market equilibrium, all potential gains from trade are captured, and so complete efficiency in resource use prevails. What we call a Pareto optimum, Pareto himself described as a position of maximum ophelimity:

We will say that the members of a collectivity enjoy *maximum ophelimity* in a certain position when . . . any small displacement in departing from that position necessarily has the effect of increasing the ophelimity which certain individuals enjoy, and decreasing that which others enjoy, of being agreeable to some, and disagreeable to others.

If we have not yet reached an optimum, then mutually agreeable trades remain available whereby some trading partners can gain without others losing.

During his lifetime (he died in 1923) Pareto's work heavily influenced the utility theory of the American economist Irving Fisher. Posthumously his work had a much wider influence after Lionel Robbins, in *The Nature and the Significance of Economic Science* (1932), finally impressed upon economists that the ordinal preference-ranking utility of modern price theory (Pareto's ophelimity) is utterly distinct from the cardinal utility of Benthamite utilitarianism (a magnitude of felt pleasure). John Hicks (1972 Nobel laureate in economics) and other young theorists including Oskar Lange, Abba Lerner, and Paul Samuelson (1970 Nobel laureate), rediscovered and elaborated Paretian price theory and developed a "new welfare economics" using Pareto optimality as a benchmark. Samuelson in particular developed the theory of market failure to achieve Pareto optimality in the case of public goods.

THE THEORY OF PUBLIC GOODS

For Samuelson, the theory of public goods was the key to formulating a "theory of optimal public expenditure" because it "explicitly introduces the vital external interdependencies that no theory of government can do without." In his pioneering articles "The Pure Theory of Public Expenditure" (1954) and "A Diagrammatic Exposition of a Theory of Public Expenditure" (1955), Samuelson formally defined public goods or "collective consumption goods" as goods that exhibit *nonrivalness in consumption*, meaning goods "which all enjoy in common in the sense that each individual's

consumption of such a good leads to no subtractions from any other individual's consumption of that good."¹¹

A standard textbook example of a nonrival good is pure information such as a useful theorem or recipe. My use of the Pythagorean theorem, or of a recipe for chocolate cake, does not subtract from the number of uses available to others. (By contrast, I cannot eat a physical chocolate cake and let someone else have it too. The cake exhibits *rivalness* in consumption.) An over-the-air radio broadcast is similarly nonrival: My tuning it in does not diminish the amount of radio signal available for you to tune in. Since most radio broadcasting in North America and Europe is for-profit, this example illustrates that nonrival goods can at least sometimes be provided by private enterprise, in this case by bundling them with advertising. Whether a good is a "public good" in the theoretical sense is independent of whether it is currently provided by public authorities.

A second important characteristic associated with public goods is *non-excludability in supply*: It is not profitable to block nonpayers from enjoying the services of the good once it is provided to anyone. For example, it is not profitable (and probably not presently feasible at any expense) to repair the atmospheric ozone layer only over the backyards of those who pay for it, leaving holes over the yards of nonpayers. An antimissile defense system cannot leave windows for missiles to rain down only on the real estate of those who have not paid.

Goods that are nonrival tend also to be nonexcludable. It is difficult to detect cheaply, and thereupon charge a user fee to, the ordinary beneficiary of (say) an over-the-air radio or television broadcast given that the beneficiary stays behind closed doors and does not take anything away from others. But cheap detection is a technological question, and detection is not inconceivable even in the case of broadcasts. To finance the British Broadcasting Corporation, the British government levies an annual tax on all television users and enforces the tax by sending out roving vans equipped with powerful antennas that can supposedly detect electromagnetic radiation from a television in use behind closed doors.¹² Of course, this is not

¹¹ Paul A. Samuelson, "The Pure Theory of Public Expenditure," *Review of Economics and Statistics* 36 (November 1954), p. 387; Samuelson, "A Diagrammatic Exposition of a Theory of Public Expenditure," *Review of Economics and Statistics* 37 (November 1955), p. 350. Samuelson noted in passing some earlier economists who had worked on the problem of optimal public expenditure, including Knut Wicksell, Eric Lindahl, and Howard R. Bowen.

¹² For doubt that the TV detector vans really work other than as a bluff, see Rob Beschizza, "BBC Admits That TV Detector Vans Only Work Because Britons Believe They Do," <http://gadgets.boingboing.net/2008/10/31/bbc-admits-that-tv-d.html>. For a blog that promotes

really a true user fee, given that all television users must pay, without regard to how many hours of BBC broadcasting they watch if any.

Despite unpriced government provision of radio and television broadcasts in Britain and elsewhere, private entrepreneurs finance for-profit broadcasts by bundling them with advertising and have developed new nonbroadcast technologies that allow them to provide radio and television without advertising (and with content that many prefer) by charging fees to users and excluding nonpayers. A cable TV subscriber who stops paying will have her cable disconnected. A satellite TV subscriber who stops paying will stop receiving the code updates that unscramble the signals. Providers of cable and satellite television and satellite radio thereby effectively exclude nonpayers, although detecting and preventing piracy of their signals remain concerns of theirs.

More generally, the ability to exclude would-be free-riders more cheaply, through new metering technologies, undercuts market-failure arguments for tax-funded provision that are based on old technology. As Fred E. Foldvary and Daniel B. Klein have written:

Most market-failure arguments boil down to claims about invisible-hand mechanisms being obstructed by some kind of transaction costs. If technology trims transaction costs – by making it easy to charge users, define and enforce property rights, exit and utilize substitutes, gather information, gain assurance of quality and safety, enter and compete in markets – the invisible hand works better.¹³

Foldvary and Klein assembled a collection of studies that identify where new metering technologies allow greater use of user-pays and private-property approaches to industries that have traditionally been tax-financed or state-regulated, including ocean fisheries, lighthouses, motorways, curbside parking, and clean air.

Some economists have distinguished “pure public goods,” nonrival goods for which there is no cost-effective exclusion technology, from “club goods,” nonrival goods like satellite television or uncongested country-club facilities, for which exclusion is practical. We then have a two-by-two matrix of types of goods (see [Table 13.1](#)).

resistance to the BBC license tax see <http://www.tvlicensing.biz/wpblog/index.php>. For images of threatening official letters sent to a property owner who lacks a TV license, see <http://www.bbctvlicence.com/>.

¹³ Fred E. Foldvary and Daniel B. Klein, “Introduction,” in Foldvary and Klein, eds., *The Half-Life of Policy Rationales: How New Technology Affects Old Policy Issues* (New York: New York University Press, 2003), p. 1.

Table 13.1. *Types of Goods*

	Excludable	Nonexcludable
Rival	Private goods Fish TV dinner	Common pool resources Fish in the ocean
Nonrival	Club goods Satellite TV fishing show	Public goods Broadcast TV fishing show

FREE-RIDING, PRICING, AND MARKET FAILURE

If a good is going to be provided without exclusion, the provider may ask for donations. Listener-supported radio stations in the United States are notorious for their frequent pledge drives. The selfishly best strategy for any listener is to “free-ride,” meaning not to contribute. But if *everyone* free-rides, no one covers the production cost. In the polar case, Paul Samuelson and William Nordhaus concluded in their textbook, “private provision of these public goods will not occur because the benefits of the goods are so widely dispersed across the population that no single firm or consumer has an economic incentive to produce them.” They leap to a policy recommendation in the next sentence: “Because private provision of public goods will generally be insufficient, government must step in to provide public goods.” Richard Musgrave is a even more explicit: “government must step in and compulsion is called for.”¹⁴

If a nonrival good is excludable (a “club good”), then it can be withheld from nonpayers, allowing a producer to induce payment from those who want it and thereby to finance its provision. But any positive price, Samuelson argued, means that *too little* is consumed. Where the social marginal cost of adding another beneficiary is zero because of nonrivalness, any positive price blocks potential net social benefits. The benefits to additional users will be all gravy. For example, within the area already covered by a radio satellite, additional recipients (assume they pay for their own receivers) impose no burden on the provider or on others. If the satellite radio signal is only available by paying a set monthly subscription fee, net social benefits are left on the table. There are potential satellite radio listeners who are willing to pay something – their potential benefit exceeds the signal

¹⁴ Paul A. Samuelson and William D. Nordhaus, *Economics*, 13th ed. (New York: McGraw-Hill, 1989), p. 45. Richard Musgrave, *The Theory of Public Finance* (New York: McGraw-Hill, 1959), p. 8.

provider's zero cost of letting them listen – but they are excluded because they are not willing to pay as much as the subscription price. In such a case, by Samuelson's criteria, the market fails to capture all potential gains from trade. A good is unprovided or underprovided even though potential users *would* (faced hypothetically with exclusion of nonpayers) be willing to cover the costs of providing the good to them.

Critics of Samuelson's analysis pointed out that a profit-seeking private firm, providing subscription (satellite or cable) television or radio, would naturally *want* to avoid such underprovision. It would love to increase its revenue without additional production cost, and thus earn additional profits, if it could do so by adding subscribers who are willing to pay something positive but less than the list price of a subscription. If it is economical to do so, the firm will charge each such customer individually a rate up to the highest rate she is just willing to pay. It will thereby approach the Samuelsonian optimal viewership or listenership. In general the market will efficiently provide public goods when private firms can cheaply enough charge multiple prices in this way.¹⁵

But if multiple pricing is not economical, if the firm would have to discount the rate for *all* subscribers because it cannot economically separate out those who are willing to pay full price, it faces a "demand revelation" problem. The critics pointed out that government faces the very same problem in calibrating taxes to each individual's willingness to pay, as it needs to do if it hopes to avoid making any taxpayers worse off.¹⁶

PUBLIC GOODS AND EXTERNAL BENEFITS

In the theory of public goods, Samuelson developed the logical implications of the problem of *externalities* earlier identified by Henry Sidgwick and Alfred Marshall and developed more thoroughly by Arthur C. Pigou. In Pigou's analysis, a good provides *external benefits*, or positive externalities, when one person's consumption of the good throws off benefits to other people who do not have to pay. A public good is the limiting case of a good with no primary beneficiary, but only external beneficiaries. In

¹⁵ Harold Demsetz, "The Private Production of Public Goods," *Journal of Law and Economics* 13 (October 1970), pp. 295–306.

¹⁶ For a discussion specifically of the multiple pricing problem in television see Jora Minasian, "Television Pricing and the Theory of Public Goods," *Journal of Law and Economics* 7 (October 1964), pp. 71–80. For a useful summary of the differential pricing and differential taxation literatures see Joseph P. Kalt, "Public Goods and the Theory of Government," *Cato Journal* 1 (Fall 1981), pp. 568–70.

a nonlimiting case, some positive quantity may be privately provided, but failure to compensate the providers for the external benefits they provide results in market failure to provide *enough* of the good. To cite a somewhat frivolous example, a beautifully maintained classic convertible car brings a smile to the faces of pedestrians and other drivers who see the car drive by. Such external beneficiaries might be willing to pay more than the marginal cost of having the car on the road an additional mile. But if they do not toss currency notes and checks into the back seat as the car drives by (coins would nick the painstakingly restored paint and upholstery), the owner may have too little incentive to bear the expense, and the benefits of seeing a cool car driving by are underprovided.¹⁷

ARTHUR C. PIGOU

Arthur Cecil Pigou (1877–1959) studied under Alfred Marshall at Cambridge University and succeeded to his chair in 1908, holding it for the next thirty-five years. In his books *Wealth and Welfare* (1912) and *The Economics of Welfare* (1920) he emphasized the distinctions among private benefits, external benefits, and social benefits (the sum of private and external benefits). He gave the label “costs” to negative benefits or harms such as pollution and so spoke of a parallel distinction between private and social costs. (Thus “the problem of social cost” in the title of Coase’s article referred to Pigou’s term.) Pigou taught that markets fail to reach efficiency in the presence of externalities, whereas governments can in principle correct market failures – or “internalize externalities” – by means of appropriately chosen taxes (to suppress overproduction of goods with external costs) and subsidies (to remedy underproduction of goods with external benefits). Taxes to correct negative externalities are today commonly called “Pigovian taxes.” The prominent economics textbook author Gregory Mankiw has awarded membership in the “Pigou Club” on his blog to prominent advocates for such taxes, for example, a tax on carbon dioxide emissions.

In *Wealth and Welfare*, Pigou viewed increasing returns to industry scale (any firm that produces additional output lowers average cost for every firm in the industry) as a case of positive externalities. He likewise viewed decreasing returns (any firm that produces additional output *raises* average cost for every firm in the industry) as a case of negative externalities. He

¹⁷ The author used to own a red 1963 Ford Falcon Futura convertible that was more than 30 years old and expensive to maintain. Pedestrians smiled, but nobody threw money into the back seat.

correspondingly proposed taxes on decreasing-returns industries and subsidies to increasing-returns industries to promote efficient levels of output. Implementing such a program would clearly have meant a major expansion is government's role. The socialist economist J. A. Hobson enthusiastically noted that Pigou had thereby surrendered the case for relying on free-market competition outside the few industries with constant returns to scale (where any firm's additional output has no effect on other firms' average costs).¹⁸

Pigou did not confuse actual government with idealized government. He warned that government in practice was not the same as government in principle and concluded that whether state action improves on the market is an empirical question to be examined case by case.¹⁹ Nonetheless the take-away message that Pigou is known for is the argument that government can remedy externality problems through taxes and subsidies.

OTHER POOR EXAMPLES

Like Adam Smith citing canals and bridges, later economists from their armchairs have offered examples of supposed public goods and externalities that do not survive empirical scrutiny. The Cambridge economist James Meade (1907–95, Nobel laureate 1977), cited the fruit-tree pollination services incidentally provided by honeybees to illustrate the idea of an external benefit that is underprovided by the market. There is too little market incentive to keep honeybees, he argued, because the beekeeper is not compensated for the spillover benefits he provides to neighboring orchards. The market fails to reach an efficient outcome. To reach the social optimum, he suggested, the government must subsidize beekeepers. But Steven Cheung, in a 1973 article titled “The Fable of the Bees” (after Bernard Mandeville’s poem discussed in [Chapter 8](#)), found that beekeepers and orchard owners do in fact regularly negotiate for each other’s services. Beehives are trucked to orchards. Pollination benefits are internalized, and there is no reason to suspect market failure.²⁰

¹⁸ Krishna Baradwaj, “Marshall on Pigou’s *Wealth and Welfare*,” *Economica* 39 (February 1972), pp. 32–46.

¹⁹ Steven G. Medema, *The Hesitant Hand: Taming Self-Interest in the History of Economic Ideas* (Princeton, NJ: Princeton University Press, 2009). Medema notes the movement away from laissez faire in the views of John Stuart Mill and Henry Sidgwick, a trend knowingly continued by Marshall and Pigou.

²⁰ Steven N. S. Cheung, “The Fable of the Bees: An Economic Investigation,” *Journal of Law and Economics* 16 (April 1973), pp. 11–33.

Paul Samuelson, in the 1961 and later editions of his best-selling textbook *Economics*, following earlier uses of the same example by Mill and Pigou, proposed that the lighthouse beacon for guiding passing ships is a public good, a good yielding nonrival services that cannot be financed through user charges. In response Ronald Coase, in his 1974 article "The Lighthouse in Economics," pointed out that historically many lighthouses were in fact financed by user fees paid by shipowners, collected at harbors by harbor masters or nonprofit organizations. David E. Van Zandt has qualified Coase's argument by noting that the privately owned lighthouses he had cited did not represent "pristine" private enterprise where government's role was limited to contract enforcement. The lighthouses relied on government licenses and government enforcement to collect fees from shipowners who had not contractually agreed to pay.²¹

Other economists since Cheung and Coase have discussed how a wide variety of goods and services have historically been provided by private enterprise despite the common view that they are inherently public goods or their benefits are mostly external, for example, coinage, turnpikes, fire-fighting, education, and the delimitation and adjudication of property rights in land.²²

RONALD COASE

Ronald Coase celebrated his hundredth birthday on 29 December 2010. "As a young boy," Coase reported in his autobiographical sketch for the Nobel committee, "I suffered from a weakness in my legs, which necessitated, or was thought to necessitate, the wearing of irons on my legs. As a result I went to the school for physical defectives run by the local council." He attended a standard secondary school and then the London School of

²¹ Ronald Coase, "The Lighthouse in Economics," *Journal of Law and Economics* 17 (1974): pp. 357–76; David E. van Zandt, "The Lessons of the Lighthouse: 'Government' or 'Private' Provision of Goods," *Journal of Legal Studies* 22 (January 1993), pp. 47–72.

²² George Selgin, *Good Money* (Ann Arbor: University of Michigan Press, 2008); Daniel B. Klein, "The Voluntary Provision of Public Goods? The Turnpike Companies of Early America," *Economic Inquiry* 28 (October 1990), pp. 788–812; Fred S. McChesney, "Government Prohibitions on Volunteer Fire Fighting in Nineteenth Century America: A Property Rights Perspective," *Journal of Legal Studies* 69 (January 1986), pp. 69–92; Jack High and Jerome Ellig, "The Private Supply of Education: Some Historical Evidence," in Tyler Cowen, ed., *The Theory of Market Failure: A Critical Examination* (Fairfax, VA: George Mason University Press, 1988), pp. 361–82; John Umbeck, "The California Gold Rush: A Study of Emerging Property Rights," *Explorations in Economic History* 14 (July 1977), pp. 197–226.

Economics (LSE), where he received a bachelor's degree in commerce in 1932. During his college years at the LSE he attended F. A. Hayek's 1931 lectures that were published as *Prices and Production*, but of much great influence was a seminar conducted by Professor Arnold Plant. "What Plant did," Coase writes, "was to introduce me to Adam Smith's 'invisible hand.' He made me aware of how a competitive economic system could be coordinated by the pricing system."²³

After brief teaching stints in Dundee and Liverpool, Coase joined the LSE faculty in 1935. His extremely influential article "The Nature of the Firm," based on research he had done during his last year of college, was published in 1937. He received a doctorate from the University of London in 1951. Coase moved to the United States to teach at the University of Buffalo from 1951 to 1958, then to the University of Virginia for 1958–64. A few years after wowing the Chicago economists at Aaron Director's dinner party, he was hired by the University of Chicago Law School, where he succeeded Director as editor of the *Journal of Law and Economics* and taught from 1964 to 1982. He received the Nobel Prize in economic sciences in 1991.

COASE'S ANALYSIS OF SOCIAL COST

In the article he defended at the Chicago dinner party, "The Federal Communications Commission" (1959), and the better-known follow-up article, "The Problem of Social Cost" (1960), Coase offered a startling new perspective: Externality problems are primarily property rights problems, not technological problems. Pigou's analysis was wrong:

The economic analysis of [a negative externality involving factory smoke] has usually proceeded in terms of a divergence between the private and social product of the factory, in which economists have largely followed the treatment of Pigou in *The Economics of Welfare*. . . . [M]ost economists [conclude] that it would be desirable to make the owner of the factory liable for the damage caused to those injured by the smoke, or alternatively, to place a tax on the factory owner. . . . It is my contention that the suggested courses of action are inappropriate, in that they lead to results which are not necessarily, or even usually, desirable.²⁴

Externalities arise, Coase argued, where the property rights of interacting parties are poorly defined or enforced. Where property rights can

²³ Ronald Coase, "Autobiography" at Nobelprize.org., http://nobelprize.org/nobel_prizes/economics/laureates/1991/coase-autobio.html.

²⁴ Ronald Coase, "The Problem of Social Cost," *Journal of Law and Economics* 3 (October 1960), pp. 1–44.

be defined and enforced, trade among property owners will internalize would-be externalities. In the early days of radio, to use Coase's 1959 subject matter, the externality problem of interference among broadcasters, simultaneously transmitting on the same or adjacent frequencies, arose from the fact that ownership of the broadcast frequencies had not been established:

But the real cause of the trouble was that no property rights were created in these scarce frequencies.... [I]f no property rights were created in land, so that everyone could use a tract of land, it is clear that there would be considerable confusion and that the price mechanism could not work because there would not be any property rights that could be acquired.... A private-enterprise system cannot function properly unless property rights are created in resources, and, when this is done, someone wishing to use a resource has to pay the owner to obtain it. Chaos disappears; and so does the government except that a legal system to define property rights and to arbitrate disputes is, of course, necessary.²⁵

The idea of creating and selling rights to broadcast frequencies was considered beyond the pale by the Federal Communications Commission (FCC) in 1959. These days it is a big source of government revenue in the United States and elsewhere. Since 1994 the FCC has conducted dozens of auctions of radio-frequency spectrum yielding more than \$50 billion in total. The British government took in £22.5 billion from an auction of 3G spectrum rights in 2000. Nobel Prizes in economics have gone to auction design theorists: William Vickrey in 1996; Leonid Hurwicz, Eric Maskin, and Roger Myerson in 2007.

The Coasean property-rights analysis extends to other externality problems such as overgrazing of land held in common ownership ("the tragedy of the commons") or water pollution.²⁶ When a river or lake is unowned or commonly owned, multiple users treat the body of water as a free waste sink. When the body is privately owned, the property owner has legal standing to stop the dumping of chemical waste into the water as a simple matter of trespassing. Those who want to conduct activities that would discharge effluents into an owned body of water have to pay the owner for permission (buy an *easement*, in legal terminology). The owner will sell an easement only insofar as it is worth it, that is, he will allow effluents or other disamenities only up to a level that does not begin to impede what the

²⁵ Ronald Coase, "The Federal Communications," *Journal of Law and Economics* 2 (October 1959), p. 14.

²⁶ Such extensions are the basis of a school of thought known as "free-market environmentalism." See Terry Anderson and Donald R. Leal, *Free Market Environmentalism*, rev. ed. (New York: Palgrave, 2001).

owner considers more valuable uses for the body of water. A noteworthy example is that the National Audubon Society sold carefully circumscribed easements to an oil company to operate natural gas wells inside its Rainey Preserve wetlands bird sanctuary in Louisiana.²⁷

Coase recognized a practical limit to resolving externalities through property rights where property rights are difficult to specify or enforce. An easy case to resolve through property rights is smoke from a single factory that interferes with property use and enjoyment by a single downwind landowner. A much harder case for property-rights resolution is automobile tailpipe emissions from thousands of drivers that disperse through the atmosphere and ultimately enter thousands of landowners' airspace. Suppose that you have a specified property right that allows you to sue to stop air pollutants from entering the airspace over your land. Whom would you sue for automobile emissions? All drivers within a hundred miles, with damages assessed in proportion to each one's emissions? Property trespass is exceedingly costly to trace to its source, much less to calculate damages from and negotiate over, when there are mingled emissions in varying magnitudes from thousands or millions of emitters. Wrote Coase:

When large numbers of people are involved, the argument for the institution of property rights is weakened and that for general regulations becomes stronger. The example commonly given by economists, again following Pigou, of a situation which calls for such regulation is that created by smoke pollution. Of course, if there were only one source of smoke and only one person were harmed, no new complication would be involved; it would not differ from the vibration case [the doctor's office next to the candy factory] discussed earlier. But if many people are harmed and there are several sources of pollution, it is more difficult to reach a satisfactory solution through the market. When the transfer of rights has to come about as a result of market transactions carried out between large numbers of people or organizations acting jointly, the process of negotiation may be so difficult and time-consuming as to make such transfers a practical impossibility. Even the enforcement of rights through the courts may not be easy. It may be costly to discover who it is that is causing the trouble.... As a practical matter, the market may become too costly to operate.²⁸

Man-made global warming through carbon dioxide emissions can be seen as a large-numbers problem arising in the absence of a private property system, a tragedy of the commons. As the economist Thomas C. Schelling (Nobel laureate 2005) has written: "Because no one owns the atmosphere,

²⁷ Richard L. Stroup, "Reflections on 'Saving the Wilderness,'" *PERC Reports* 28 (Summer 2010), pp. 12–18.

²⁸ Coase, "Problem of Social Cost," p. 29.

no one has a sufficient incentive to take account of the change to the atmosphere caused by his or her emission of carbon. Also, carbon emitted has the same effect no matter where on earth it happens.”²⁹ Because there are large numbers on both sides, the notion of a Coasean resolution – could we define and enforce a property right not to have another’s activity warm one’s climate? – has not entered the debate over what if anything to do. Instead the debate has been over the costs and benefits of various government restrictions and Pigovian taxes, most prominently a cap-and-trade system (setting the aggregate quantity allowed) or a tax (setting the price) for carbon dioxide emissions.

Whether the allowed level of a pollutant is set by property owners selling easements, or by government, the problem of maximizing the value of total output (of whatever people value, including environmental amenities) is the same, at least on the blackboard. The problem is to equate the marginal social cost of reducing the level of pollution (the loss of outputs from the polluting activity) to the marginal social benefit.

Consider again the simple two-party case, the candy factory emitting noise that interferes with the use of a doctor’s examination room built nearby. Suppose that adequate soundproofing is too expensive, and the cheapest way to reduce the noise-pollution interaction is simply to reduce the operating hours either of the factory or of the doctor’s office. Optimality is reached where the net revenue from candy production that would be lost by shortening the factory’s workday by an hour is equal in value to the net revenue from doctor services that would be lost by shortening the workday of the doctor’s examining room by an hour. How do we discover the relative values of the two activities? If transactions costs are not prohibitive, we can look to market trades to tell us. If the legal system gives the doctor the right to decide the level of noise pollution, but the net revenue from the marginal hour of candy production is greater than the net revenue from

²⁹ Thomas C. Schelling, “Greenhouse Effect,” *Concise Encyclopedia of Economics*, <http://www.econlib.org/library/Enc1/GreenhouseEffect.html>. Schelling noted that the effect of warming on economic output in developed countries may be negligible or even positive: “Today, little of our gross domestic product is produced outdoors, and therefore, little is susceptible to climate. Agriculture and forestry are less than 3 percent of total output, and little else is much affected.... Considering that agricultural productivity in most parts of the world continues to improve (and that many crops may benefit directly from enhanced photosynthesis due to increased carbon dioxide), it is not at all certain that the net impact on agriculture will be negative or much noticed in the developed world.” More serious are the possible negative effects on developing countries in already-warm zones that depend more heavily on agriculture. Schelling received the Nobel Prize in 2005 for his work in game theory.

the marginal hour of examining, and transaction costs do not intrude, the factory owner will find it profitable to buy an easement from the doctor, allowing the factory to generate the noise for an additional hour, at a price that the doctor will find it profitable to accept. If the factory owner does not buy an hour's easement, we can infer that the marginal hour of candy making is not bringing in enough revenue to outbid the doctor, who is willing to pay up to what he nets from the marginal hour of examining.

Where transactions costs (including the large-number problems Coase cited) block such trades, or legal rules outlaw a market in easements, there is no obvious way to discover willingness to pay. We are at sea without a reliable compass. In the case of climate change, Schelling has noted, an important "argument is that our natural environment may be severely damaged. This is the crux of the political debate over the greenhouse effect, but it is an issue that no one really understands. It is difficult to know how to value what is at risk, and difficult even to know just what is at risk."³⁰ In the case of (say) atmospheric ozone, there may be only indirect methods for guesstimating what people would be willing to pay in the aggregate for a unit reduction in ozone, such as a telephone survey asking people to report their expenditures to ameliorate health symptoms during high-ozone periods.³¹

On the industrial-polluter side of the interaction, many economists are attracted to cap-and-trade policies (over nontradable emission-reduction mandates to every firm) as a way of creating a market in which emissions are abated by the firms that can do so at least cost. Others see the same benefit in a carbon tax.³² Neither cap-and-trade nor a carbon tax, however, solves the problem of setting the optimal level (or alternatively the price) of emissions because it does not reveal the public's willingness to pay for lower emissions.

The problem of inducing individuals to reveal honestly their full willingness to pay for a nonexcludable good is called the "demand revelation

³⁰ Ibid.

³¹ Mark Dickie and Shelby Gerking, "Willingness to Pay for Ozone Control: Inferences from the Demand for Medical Care," *Journal of Environmental Economics and Management* 21 (July 1991), pp. 1–16.

³² For a useful primer see Tim Haab and John Whitehead, "Environmental Economics 101: Carbon Tax vs. Cap-and-Trade," http://www.env-econ.net/carbon_tax_vs_capandtrade.html. For scholarly discussion see William J. Baumol and Wallace E. Oates, *The Theory of Environmental Policy*, 2nd ed. (Cambridge: Cambridge University Press, 1988), and Jason Scott Johnston, "Problems of Equity and Efficiency in the Design of International Greenhouse Gas Cap-and-Trade Schemes," *Harvard Environmental Law Review* 33 (2009), pp. 405–30.

problem.”³³ Unless government has a technique for solving the demand revelation problem that private entrepreneurs cannot adopt, Samuelson and Nordhaus’s statement that “because private provision of public goods will generally be insufficient, government must step in” is a non sequitur. Lacking a way to elicit the necessary information about willingness to pay, we lack assurance that government stepping in will move us closer to economic efficiency.

Joseph Kalt has pointed out that the nature of public goods, the nonrivalness and nonexcludability that make them resist efficient market provision by blocking demand revelation, equally makes them resist efficient government provision. If entrepreneurs cannot induce users to fork over what they are hypothetically willing to pay, because there is no cost-effective way to exclude nonpayers, then tax collectors would equally lack any means to induce taxpayers to reveal honestly their full willingness to pay in a “voluntary taxation” scheme under which they will be taxed accordingly. Whenever private provision of a good is presumed inefficient because of a demand revelation problem, government provision should also be presumed inefficient. We should expect the same goods that exhibit market failure ipso facto to exhibit government failure to achieve Pareto efficiency.³⁴

Simply forcing a payment willy-nilly does not reveal voluntary willingness to pay. Taxation thus does nothing to help solve the demand revelation problem. It merely changes its sign. With a market undone by free-riding, you cannot buy a service even when you and enough others want it at cost-covering prices. With taxation, you pay for the service even when you do not want it. Financing a hypothesized public good by a tax levy that exceeds any individual’s willingness to pay for the good makes that individual worse off. It does not provide a Pareto improvement over the market outcome.

To be clear, the demand revelation problem, in the absence of actual transactions, is not a rationale for “doing nothing” against atmospheric trespass or similar large-number externality problems. The status quo is not a privileged benchmark. By the logic of the demand revelation problem, we cannot know that doing nothing is a Pareto optimum by the standard of potential willingness to pay.

Because the Pareto criterion yields no advice in such cases, welfare economists have developed the less demanding *Kaldor-Hicks efficiency* criterion, which dispenses with the Paretian need for careful calibration of

³³ In the case of an excludable but nonrival good, as in the satellite radio example discussed, the problem also arises for units not currently being purchased.

³⁴ Kalt, “Public Goods, pp. 573–7.

taxes so that nobody is made worse off and merely asks whether a particular program of taxes and government expenditures provides the public with greater benefits than costs in the aggregate.³⁵ But in the case of public goods provision, since we still lack the ability to measure an individual's willingness to pay and aggregate benefits are to be measured by adding up all individuals' willingness to pay, we still lack the ability to verify the claim that tax-financed additional provision of a particular good will move us closer to economic efficiency than the market level of provision.

INCOME TRANSFERS AS A PUBLIC GOOD

A large part of the growth of government in the postwar era has been the growth of tax-financed transfer programs: Social Security, Medicare, Medicaid, unemployment insurance, and temporary assistance to needy families. In such programs the government directly transfers funds to the recipients for them to spend. Because the government is not buying inputs or hiring workers to provide public services, transfer activity may seem to fall outside the scope of public goods theory. The economist Lester Thurow, however, argued in a widely cited article that if taxpayers are willing to pay for a change in the distribution of income, for example, a move toward a more equal distribution, then achieving the preferred income distribution through tax-financed transfers *should* be viewed as the provision of a public good. He explained:

The distribution of income itself may be an argument in an individual's utility function. This may come about because there are externalities associated with the distribution of income. Preventing crime and creating social or political stability may depend on preserving a narrow distribution of income or a distribution of income that does not have a lower tail. Alternatively, individuals may simply want to live in societies with particular distributions of income and economic power.

Citing Samuelson's 1954 definition, Thurow argued that a desired change in the distribution of income meets the nonrivalness and nonexcludability tests for a pure public good. Accordingly the free-rider problem applies:

Each individual in society faces the same income distribution. No one can be deprived of the benefits flowing from any particular income distribution. My

³⁵ The foundational works for this approach were Nicholas Kaldor, "Welfare Propositions in Economics and Interpersonal Comparisons of Utility," *Economic Journal* 49 (September 1939), pp. 549–52; and J. R. Hicks, "The Foundations of Welfare Economics," *Economic Journal* 49 (December 1939), pp. 696–712.

consumption of whatever benefits occur is not rival with your consumption. In short, the income distribution meets all of the tests of a pure public good. Exclusion is impossible; consumption is non-rival; each individual must consume the same quantity. The same problems also occur. Each individual has a vested interest in disguising his preferences concerning his desired income distribution to avoid paying his optimal share of the necessary transfer payments.

Thurow's was a purely theoretical argument. To ensure that any particular tax-financed income redistribution program actually brings about a Pareto improvement, of course, policy makers would have to go beyond *supposing* that taxpayers in general have a certain willingness to pay for a change in the distribution of income ("The distribution of income itself *may* be an argument in an individual's utility function," Thurow wrote [emphasis added]) to *establishing* what each taxpayer's willingness to pay actually is. Establishing the actual extent of willingness to pay, Thurow acknowledged at the end of his article, is blocked by the demand revelation problem: "It is possible to imagine attempts to measure individual preferences concerning the distribution of income, but these would run into the familiar revealed preference problems common to all public goods."³⁶

Thurow's discussion of the income distribution illustrates the adaptability of the public goods argument. It can be applied to any change from the free market outcome that the analyst *supposes* to provide nonrival benefits for which individuals are willing to pay but are blocked by the free-rider problem. The benefits need not be tangible. The theory of public goods and externalities suggests that an individual consumes a public good (or enjoys an external benefit) *passively*. The income distribution in Thurow's discussion simply enters an individual's utility function, so that redistribution in the right direction showers a benefit down on the individual. The individual's benefit from a change in the income distribution results just from *knowing* something and need not be manifested in any way. A lack of any evidence that individuals are willing to pay for the change is readily attributed to the free-rider problem.

How do we *know* individuals are willing to pay enough to cover the cost of a supposed public good? When we do not see a good being produced, it need not be that transaction costs or free-rider problems are blocking

³⁶ Lester C. Thurow, "The Income Distribution as a Pure Public Good," *Quarterly Journal of Economics* 85 (May 1971), pp. 327–8, 335. Thurow's public goods approach to income redistribution was inherently Paretian. For an explicitly non-Paretian approach to the question, of the same vintage, see Ray C. Fair, "The Optimal Distribution of Income," *Quarterly Journal of Economics* 85 (November 1971), pp. 551–79.

something that ought to be done. It could be that the good in question is not really worth producing in the eyes of those who would bear the cost. We do not know which it is, and by the inbuilt logic of the construct we *cannot* know. Thurow's idea of "the income distribution as a public good" thus illustrates a danger arising from the flexibility of the public goods argument in the absence of a demand revelation mechanism. Without some method for testing suppositions about other people's willingness to pay, claims to the effect that "this good is an underprovided public good" can be multiplied indefinitely, together with claims that compulsion is justified to make taxpayers foot the bill for providing it. The set of public good claims cannot be winnowed down to just those goods whose public provision would actually benefit some without harming others.³⁷

PUBLIC CHOICE AND THE PROBLEM OF RENT-SEEKING

There are other reasons, besides the demand revelation problem, to doubt that taxation and government financing will work to improve the well-being of some while burdening nobody. The body of economic thought known as public choice examines the operation of political institutions using the standard neoclassical economic concepts of self-interested rational choice (optimization) and equilibrium. James M. Buchanan, a Nobel laureate in 1986 for pioneering the approach, has called it "politics without romance." Public choice has an explanatory side and a prescriptive side that goes under the name of "constitutional political economy." Two leading journals associated with the approach are not surprisingly named *Public Choice* and *Constitutional Political Economy*.

The explanatory side of the public choice approach warns us that individuals can use the powers of government for special-interest programs, or "rent-seeking," gaining benefits for some at the expense of others. If we unromantically assume that the self-seeking that creates the free-rider problem also prevails in the political arena, it implies a willingness to tax others for one's own benefit. As Joseph P. Kalt has put the point, "If individuals can get away without paying for something, either by free-riding when the market system tries to provide a public good or by forcing others to pay through governmental coercion, they can generally be expected to do so."³⁸

³⁷ The practical problem remains even though harm to some, for example, those displaced by a highway, could in principle be eliminated through large enough compensatory side payments from the beneficiaries.

³⁸ Kalt, "Public Goods," p. 583.

A transfer from some to others can be achieved through a majority vote when, in William F. Shugart's words, "collective decision-making processes allow the majority to impose its preferences on the minority."³⁹ In voting for a program that makes a transfer, the legislature may fail to represent the interest of a majority of citizens. On an issue where the taxpaying majority is poorly organized, a well-organized special interest group may use plausible arguments (and campaign contributions) to persuade legislators to grant it monopolistic privileges or to tax the general public for the group's benefit. This is especially likely where the benefits are concentrated, while the burden is so diffused over the general public that it is hardly felt. Think again of an import quota that quietly adds to the price of each new car sold. Or think of the government's paying farmers to grow fewer crops.

Rationally self-interested voters, when they free-ride on the watchdog efforts of others, will fail to stop rent-seeking programs. An individual's effort to oppose rent-seeking, for example an effort by Peter to lobby against a government program that transfers resources to Paul at the expense of a thousand people like Peter, has the characteristics of an individual's effort to provide a public good: The benefits go almost entirely to others without compensation, the others can be expected to free-ride, and the effort will be underprovided in the political market.⁴⁰ Limiting government to efficient activity is itself an activity with the characteristics of a public good. In this way, public choice theory turns public goods theory against the public goods theorists, or at least against those who have tried to derive from the concepts of public goods and externalities the lesson that efficiency warrants a wider-than-minimal scope for government.

Rent-seeking is a negative sum game. The beneficiaries not only receive transfers at the expense of other citizens, but the lobbying process burns resources. In a widely cited article, Gordon Tullock pointed out that the waste associated with competition for monopoly privileges can exceed the waste due to misallocation of resources associated with the resulting monopoly output and price.⁴¹ Viewed through the lens of rent-seeking theory, Buchanan has commented,

³⁹ William F. Shugart II, "Public Choice," *Concise Encyclopedia of Economics*, <http://www.econlib.org/library/Enc/PublicChoice.html>.

⁴⁰ Gordon Tullock, "Public Decisions as Public Goods," *Journal of Political Economy* 79 (July–August 1971), pp. 913–18; Kalt, "Public Goods," pp. 565–84. A classic work that examines how interest groups overcome free-riding in their lobbying efforts is Mancur Olson, *The Logic of Collective Action* (New York: Schocken Books, 1971).

⁴¹ Gordon Tullock, "The Welfare Costs of Tariffs, Monopolies, and Theft," *Western Economic Journal* 5 (June 1967), pp. 224–32.

much of modern politics can only be interpreted as rent-seeking activity. The pork-barrel politics of the United States is only the most obvious example. Much of the growth of the transfer sector of government can best be explained by the behavior of political agents who compete in currying constituency support through promises of discriminatory transfers.⁴²

Clearly the public choice approach provides a very different perspective on government redistribution of income than Lester Thurow's approach of viewing it as a public good.

These government-failure problems have led public choice theorists to doubt that empowering government to tax and intervene at its discretion will in practice improve on market outcomes, whether in a Paretian or in a looser Kaldor-Hicks or utilitarian sense, even if such empowerment would be an efficient way to provide public goods in a world of omniscient and angelic government.

The economist Donald Wittman has criticized the theory of government failure in a competitive democracy on the grounds that the voting should be expected to prevent government from doing more than the middle-of-the-road voter wants it to do. Bryan Caplan has responded that Wittman's argument relies on voters' gathering unbiased information about government programs and their effects, whereas in fact no voter has the incentive to do so, knowing that her vote is not decisive. Instead voters cast ballots in accordance with their systematically biased misconceptions about how the world works, with unfortunate results.⁴³

CONSTITUTIONALISM

A landmark work in constitutional political economy was Buchanan's and Tullock's book *The Calculus of Consent* (1962). Buchanan later told an interviewer: "I was influenced by the Swedish economist Wicksell, who said if you want to improve politics, improve the rules, improve the structure. Don't expect politicians to behave differently. They behave according to their interests." Buchanan and Tullock viewed the problem of designing a framework for economic policy as a problem of constraining the state to a set of actions that, taken as a whole, is Pareto-improving (that is, to which

⁴² James M. Buchanan, *Public Choice: Origins and Development of a Research Program* (Fairfax, VA: Center for the Study of Public Choice, George Mason University, 1983), p. 7.

⁴³ Donald Wittman, *The Myth of Democratic Failure: Why Political Institutions Are Efficient* (Chicago: University of Chicago Press, 1995); Bryan Caplan, *The Myth of the Rational Voter: Why Democracies Choose Bad Policies* (Princeton, NJ: Princeton University Press, 2007).

every potential citizen would agree). They asked, as Buchanan later put it: “[H]ow could persons, as voters-taxpayers-beneficiaries be assured that the ultimate exchange with the state would yield net benefits? That the whole game of politics be positive sum?” As a predecessor for their work they cited the Swedish economist Knut Wicksell, who worried in the 1890s that a legislative majority coalition can benefit insiders at the expense of outsiders. Buchanan and Tullock took seriously Wicksell’s finding that “majority-voting rules operate so as to produce inefficient and unjust outcomes.”⁴⁴

Wicksell proposed that unanimity among the voters is necessary to ensure that new measures are Pareto improvements. Buchanan and Tullock, much like Coase in his view that negotiation costs may become prohibitive in the large-numbers case, responded that achieving strict unanimity on every piece of legislation in a large democracy is too costly a requirement. A unanimity requirement would block even the provision of public goods that benefit almost everyone. They proposed supermajority voting rules, requiring (say) two-thirds or three-fourths approval for a measure to pass, as preferable on utilitarian grounds to strict unanimity on one side and to a simple majority rule on the other. Buchanan later described their work this way:

Less-than-unanimity rules, and even majority rules, may be allowed to operate over the decisions made through ordinary politics provided that there is generalized consensus on the “constitution,” on the inclusive set of framework rules that place boundaries on what ordinary politics can and cannot do. In this fashion, the analysis in *The Calculus of Consent* made it possible to incorporate the Wicksellian reform thrust toward qualified or super majorities into politics at the level of constitutional rules, while allowing for ordinary majority-voting rules within constitutional limits.

In a sense, the whole analysis in our book could have been interpreted as a formalization of the structure that James Madison had in mind when he constructed the U.S. Constitution.⁴⁵

When Buchanan won the economics Nobel in 1986, a journalist described him as “the patron saint of monetary constitutions, tax caps, balanced budget amendments and the like.”⁴⁶ By rebuilding the intellectual case for the limited-government constitutionalism of the American founders, Buchanan and Tullock might today be called patron saints of the constitutionalist wing of the Tea Party movement.

⁴⁴ Buchanan, *Public Choice: Origins*, p. 4.

⁴⁵ *Ibid.*, p. 5.

⁴⁶ David Warsh, “The Skeptic’s Reward,” *Boston Globe*, 26 October 1986, p. A1, <http://www.boston.com/globe/search/stories/nobel/1986/1986d.html>.

To take the argument back to where this chapter started, we can see public choice as taking a Coasean approach to the role of government. For goods that have low market transactions costs, we can rely on the market process to deliver approximate efficiency. For goods that have high transactions costs and demand revelation problems, we have to weigh market imperfections against government imperfections. Government provision tends to be riddled with informational and rent-seeking problems that block the achievement of efficiency and may also lead to restrictions on liberty. This leaves Coase, and Buchanan and Tullock, with a classical liberal presumption in favor of market approaches. But the presumption is rebuttable: For some goods or services, they tell us, we cannot avoid the need to weigh seriously – no matter how unavoidably imperfect the weighing schemes we can construct – the overall benefits and costs of market and governmental approaches, either at the constitutional or at the legislative stage.⁴⁷

⁴⁷ I thank Dan Klein for suggestions on wrapping up the chapter, without holding him responsible for what I have written.

Free Trade, Protectionism, and Trade Deficits

Milton Friedman was asked to testify before the U.S. Trade Deficit Review Commission in 1999. He wore an Adam Smith necktie to the hearing, which led to the following exchange:

COMMISSIONER D'AMATO: Dr. Friedman, I want the record to note that you're wearing an Adam Smith tie.

MR. FRIEDMAN: Yes. As you know, Adam Smith was the first one who said that it's always in the interest of the consumer to buy what he can buy most cheaply. And you know he also said that businessmen seldom meet for dinner without conspiring against the public.

COMMISSIONER D'AMATO: I think that my guess is that Adam Smith would be pleased that you're wearing his tie today. My question is ... how do you think Adam Smith would have felt about the WTO [World Trade Organization]? ...

MR. FRIEDMAN: In my opinion, the best policy we can follow is to unilaterally remove our restrictions on trade.¹

SHRINKING TARIFFS, GROWING TRADE

The logic of embracing free trade *unilaterally*, that is, no matter what policy any other national government adopts, is well expressed in an adage attributed to the economist Joan Robinson: Even if your trading partner dumps rocks into his harbor to obstruct arriving cargo ships, you do not make yourself better off by dumping rocks into your own harbor. In a world where few governments heed this logic, apparently because they think that they are giving up something by letting their consumers and businesses buy without artificial obstruction and should get something in

¹ Milton Friedman, "Question and Answer Session with Milton Friedman," *U.S. Trade Deficit Review Commission* (15 November 1999), pp. 126–7, <http://govinfo.library.unt.edu/tidrc/hearings/15nov99/p11111599.pdf>.

return, multinational agreements may offer a face-saving way for governments to lower tariffs and eliminate other trade barriers in concert.² The World Trade Organization was established in 1995 to provide a forum for negotiating and enforcing trade treaties covering its more than 150 participating nations. It succeeded a less formal club known as GATT, the General Agreement on Tariffs and Trade. GATT was established in 1947 with twenty-three member nations and expanded its membership over the years. There had been discussion at the Bretton Woods Conference about creating an “international trade organization” to accompany the World Bank and the International Monetary Fund, but the U.S. Congress did not then support the idea.³

Postwar trade liberalization has dramatically reduced average tariff rates, from around 40 percent in 1947 to a current level of around 5 percent in the developed countries. (Tariffs in less-developed countries are higher on average but have also been falling.) As a result of liberalization, an ever-larger share of goods and services crosses national borders on its way to consumers. For the United States, the volume of internationally traded goods and services (the average of imports and exports) was about 15 percent of GDP in 2008, up from only 6 percent in 1970. For Canada trade rose to 35 percent from 21 percent, for Australia to 25 percent from 13 percent.⁴ The trend toward greater globalization that prevailed before the First World War, noted in [Chapter 1](#), has resumed.

FREE TRADE AND ITS CRITICS

Economists clash relatively little on the issue of international trade. From the premise that any voluntary trade benefits both parties as they themselves see it (otherwise one party would have refused) and the premise that international trade is voluntary trade (between parties in different countries), it follows that international trade benefits both parties as they themselves see it. A wide consensus among professional economists agrees that barriers to international trade harm prosperity. A scientific poll of professional economists asked for their responses to the following proposition: “Tariffs and import quotas usually reduce general economic welfare.” Of the responding economists, 71.3 percent chose “generally agree,”

² Donald J. Boudreaux, *Globalization* (Westport, CT: Greenwood, 2008), p. 135.

³ See John H. Barton et al., *Evolution of the Trade Regime: Politics, Law, and Economics of the GATT and the WTO* (Princeton, NJ: Princeton University Press, 2006).

⁴ Source: *OECD Factbook 2010*. The data series for the entire set of OECD nations goes back only to 1995.

21.3 percent chose “agree with provisos,” and only 6.5 percent chose “generally disagree.”⁵

Advocates of protectionism in recent years are largely of two types. Some are spokesmen for business or union interests seeking to block their foreign rivals from competing for domestic customers, as when the CEO of Ford Motor Company opposes the lowering of U.S. tariffs on imported cars, or when the international president of United Steelworkers calls for “Buy American” legislation. Others are populist intellectuals largely or entirely innocent of the economic way of thinking on trade. In his 1997 book *Pop Internationalism*, Paul Krugman observed that in many best-selling books that offer protectionist nostrums on international trade, the authors do not “challenge the economist’s view” but rather “they write as if it does not exist.” The reader finds “*nothing* of international trade theory as economists know it – from Ricardo on.” Instead, “[t]he frameworks that are used to discuss international trade are either the author’s own inventions or, more often, derived from business or military strategy.”⁶

Consider a recent example. The talk-show host Lou Dobbs in his book *Exporting America* (2004) expressed concern about “our growing dependency on the rest of the world for commodities and finished goods alike,” praised import quotas, and called for a “moratorium on outsourcing.” Dobbs declared, “I am neither a free trader nor a protectionist,” endorsing instead “a national policy of balanced trade.”⁷

The economics professor Donald Boudreaux of George Mason University is a defender of free trade. He met Mr. Dobbs backstage at a television studio before the taping of a discussion of trade policy. They had the following exchange (by Boudreaux’s account)⁸:

LOU DOBBS (introducing himself to me): Hi. Lou Dobbs. Nice to meet you.

DON BOUDREAUX (shaking Dobbs’s hand): Hi. Don Boudreaux. Nice to meet you.

⁵ Richard M. Alston, J. R. Kearl, and Michael B. Vaughn, “Is There a Consensus among Economists in the 1990s?” *American Economic Review* 82 (May 1992), pp. 203–9.

⁶ Paul Krugman, *Pop Internationalism* (Cambridge, MA: MIT Press, 1997), p. 73. See also Krugman, “Ricardo’s Difficult Idea: Why Intellectuals Don’t Understand Comparative Advantage,” in Gary Cook, ed., *The Economics and Politics of International Trade* (London: Routledge, 1998), pp. 22–36.

⁷ Lou Dobbs, *Exporting America: Why Corporate Greed Is Shipping American Jobs Overseas* (New York: Warner Books, 2004), pp. 139–40, 68–9, 117–18, 108–9, 38, 77.

⁸ Don Boudreaux, “Lou Dobbs, Protectionist” at the blog Cafe Hayek (18 August 2010), <http://cafehayek.com/2010/08/lou-dobbs-protectionist.html>. I have removed quotation marks from the original and used full names in place of initials but not otherwise altered Boudreaux’s script. Boudreaux’s blog post goes on to quote numerous protectionist statements in the Dobbs book including the ones quoted in the preceding text.

LOU DOBBS: So, we're here to debate the merits of free trade. But who opposes free trade?

DON BOUDREAUX (a bit taken aback): Well, *you* do.

LOU DOBBS: What makes you say *that*?

DON BOUDREAUX: I read your book.

LOU DOBBS (very loudly, so that everyone in the backstage green room heard him): You're an idiot!

ADAM SMITH'S CRITIQUE OF MERCANTILISM

The history of economists' historical debates on free trade versus protectionism has been well recounted in Douglas A. Irwin's *Against the Tide: An Intellectual History of Free Trade* (1996). The proposition that a country's prosperity is better promoted by free trade than by protectionist policies, Irwin wrote, "has survived repeated scrutiny from economists ever since Adam Smith made his celebrated case for free trade in the *Wealth of Nations*."⁹ Jagdish Bhagwati, citing Adam Smith, has aptly commented: "The fact that trade protection hurts the economy of the country that imposes it is one of the oldest but still most startling insights economics has to offer."¹⁰

Smith aimed his case for free international trade against an assortment of arguments in his day for import and payment restrictions. Those ideas and policies, today known as mercantilism, had dominated economic thought for two centuries before the publication of the *Wealth of Nations* in 1776. Mercantilist writers aimed at policies for enriching favored merchants (hence the name of the doctrine) and for enhancing the power of the state. The humorist and occasional intellectual historian P. J. O'Rourke has colorfully but accurately described Smith's targets:

Mercantilism ... was a ragbag of commercial regulations and tax and tariff policies resulting from special interest politics, influence peddling, and parliamentary logrolling all mixed together with some general misunderstandings about cash, capital flow, and government finances.¹¹

A primary mercantilist misunderstanding was to equate prosperity with hoards of gold and silver coins, which led to policies prohibiting the export of coin. To secure a "favorable" balance of trade (more coin coming in than

⁹ Douglas A. Irwin, *Against the Tide: An Intellectual History of Free Trade* (Princeton, NJ: Princeton University Press, 1996), p. 3.

¹⁰ Jagdish Bhagwati, "Protectionism," *The Concise Encyclopedia of Economics* (2001), <http://www.econlib.org/library/Enc/Protectionism.html>. Bhagwati was Irwin's dissertation supervisor.

¹¹ P. J. O'Rourke, *On the Wealth of Nations* (New York: Atlantic Monthly Press, 2007). For a more detailed account of mercantilist thought see Irwin, *Against the Tide*, pp. 26–44.

going out – calling this “favorable” implies mistakenly that we benefit by giving up goods more valuable than those we get in return), they sought to promote exports of finished products while imposing tariffs and prohibitions to restrict imports of anything but raw materials unavailable at home. In his *Lectures on Jurisprudence* Smith summarily dismissed such trade restrictions as foolishly blocking mutually beneficial commerce:

The absurdity of these regulations will appear on the least reflection.

All commerce that is carried on betwixt any two countries must necessarily be advantageous to both. The very intention of commerce is to exchange your own commodities for others which you think will be more convenient for you. When two men trade between themselves it is undoubtedly for the advantage of both.... The case is exactly the same betwixt any two nations. The goods which the English merchants want to import from France are certainly more valuable to them than what they give for them.¹²

Mercantilist writers also promoted colonialism, the program of establishing and governing overseas territories with restrictions and taxes on their trade designed to generate profits for favored home-country merchants and revenues for the king. A prominent trade restriction in the years just prior to the publication of the *Wealth of Nations* was the Tea Act that Parliament passed in 1773 to give the East India Company a monopoly on tea sold in the American colonies. Under the Navigation Acts, as Smith noted, the American colonies were allowed to export certain enumerated commodities only to Britain, and their imports and exports had to travel only in British ships.¹³ The objectives were to enrich British merchants by compelling Americans to use them as middlemen, and to enrich British shippers by blocking competition from more efficient (mainly Dutch) shippers.

Smith argued that the whole colonial system, with its bureaucratic and military expenses, was a wasteful burden on the average British citizen. It was an investment with negative returns: “Great Britain derives nothing but loss from the dominion which she assumes over her colonies.”¹⁴ Britain could instead enjoy positive benefits from overseas trade if it would give up the burden of ruling and defending its trading partners. The colonial system was advantageous only to a few privileged merchants, and only because they were able to foist the bureaucratic and military expenses, and the costs of lost trade, onto their fellow citizens:

¹² Adam Smith, *Lectures on Jurisprudence*, ed. R. L. Meek, D. D. Raphael, and P. G. Stein (Indianapolis: Liberty Fund, 1982), p. 511.

¹³ Adam Smith, *The Wealth of Nations*, 5th ed. (London: Methuen, 1904), p. 577.

¹⁴ *Ibid.*, p. 616.

To found a great empire for the sole purpose of raising up a people of customers ... is ... a project altogether unfit for a nation of shopkeepers; but extremely fit for a nation whose government is influenced by shopkeepers. Such statesmen, and such statesmen only, are capable of fancying that they will find some advantage in employing the blood and treasure of their fellow citizens, to found and maintain such an empire. Say to a shopkeeper, Buy me a good estate, and I shall always buy my clothes at your shop, even though I should pay somewhat dearer than what I can have at other shops; and you will not find him very forward to embrace your proposal. But should any other person buy you an estate, the shopkeeper would enjoin you to buy all your clothes from his shop.

This was the story of the American colonies: “the shopkeepers and other traders of England,” who bore only a tiny share of the expenses of colonization, “petitioned the parliament that the cultivators of America might for the future be confined to their shop” for their imports and exports.¹⁵

COMPARATIVE ADVANTAGE AND THE CORN LAW

Smith’s argument for free trade was based on a straightforward make-or-buy analysis: “If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry employed in a way in which we have some advantage.”¹⁶ Protectionist measures – tariffs or import quotas – block us from supplying our wants as cheaply as we could through trade and thereby reduce our well-being. Wrote Smith:

By restraining, either by high duties or by absolute prohibitions, the importation of such goods from foreign countries as can be produced at home, the monopoly of the home market is more or less secured to the domestic industry employed in producing them.¹⁷

If imported goods would be lower-priced in the absence of duties or quotas, the restraints raise prices. (In the alternative case they are irrelevant.) The higher prices benefit domestic producers of import-competing goods but harm consumers. A protectionist policy reduces overall prosperity because it misdirects the nation’s scarce labor and capital toward making “an object which it can buy cheaper than it can make. The value of its annual produce is certainly more or less diminished when it is thus turned away

¹⁵ Ibid., pp. 613–14.

¹⁶ Ibid., pp. 456–7.

¹⁷ Ibid., p. 452.

from producing commodities evidently of more value than the commodity which it is directed to produce.”¹⁸

Smith was not optimistic about Britain’s putting a free-trade regime in place, recognizing that the beneficiaries of protectionism had strong motives and means for perpetuating it:

To expect, indeed, that the freedom of trade should ever be entirely restored to Great Britain, is as absurd as to expect that an Oceana or Utopia should ever be established in it. Not only the prejudices of the public, but what is much more unconquerable, the private interests of many individuals irresistibly oppose it.

With “zeal and unanimity,” Smith added, “master manufacturers set themselves against every law that is likely to increase the number of their rivals in the home-market.”¹⁹

Smith’s case on behalf of free trade had a persuasive effect over time but did not immediately overcome the lobbying power of protection’s beneficiaries. In 1815, the British Parliament strengthened the protection of domestic agriculture against foreign competition by imposing high barriers against grain imports. The Corn Law (or Laws) banned the importation of foreign grain (“corn”) into Britain unless the price of domestic grain was at a very high level. The law was later modified into a sliding-scale tariff rate that diminished only when the price of grain rose very high. Either way, the law benefited rural landlords by blocking competition from foreign grain suppliers, thereby raising the price of domestic grain and thereby raising the rental value of domestic farmland. The high price of grain harmed consumers, the poor especially. The reduction in the consumer income left for spending on nonfood items harmed manufacturers and mechanics.

Smith argued that free trade promotes a nation’s prosperity by guiding its producers to specialize in those commodities in which they have “some advantage.” Classical economists after Smith strengthened the logic of the argument by developing what we now call the theory of *comparative advantage*. Although Smith’s argument does not depend on the labor theory of value, it might be thought from reading Smith, in the context of his cost-of-production theory of value, that for another country to “supply us with a commodity cheaper,” for example, wheat, must mean that it can produce a bushel of wheat with fewer man-hours and machine-hours than we can. The theory of comparative advantage shows that opportunities for mutually beneficial trade and specialization *do not* depend on a foreign

¹⁸ Ibid., p. 457.

¹⁹ Ibid., p. 471.

country's having such an *absolute* advantage in what they sell us while our country has an absolute advantage in what we export to them in return. Opportunities for mutually beneficial trade between the two countries typically exist even when we can produce *both* goods with less physical input or when they can.

James Mill in 1814 noted that there are two methods for a nation to acquire corn: We can produce corn at home with domestic labor (assuming all inputs to be reducible to labor), or we can use the same labor to produce different commodities that can be traded for foreign corn. The more beneficial method, direct or indirect, is the one that gives us more corn from the same labor input, or equivalently the same quantity of corn from less labor:

If we import [corn], we must pay for what we import, with the produce of a portion of our labour exported. But why not employ that labour in raising the same portion at home? The answer is, because it will procure more corn by going in the shape of commodities to purchase corn abroad, than if it had been employed in raising it at home. . . . A law therefore, to prevent the importation of corn, can have only one effect, – to make a greater portion of the labour of the community necessary for the production of its food.²⁰

This “indirect way of thinking about trade,” as Irwin has called it, means thinking in terms of the trade-offs between alternative outputs from domestic production (corn or exportable commodities). If the inputs needed to produce one bushel of corn domestically can alternatively be used to produce five yards of cloth (say), we can call five yards the “cloth-cost” of producing a bushel of corn. We need to compare our domestic cloth-cost of producing corn, five yards per bushel, with the world price at which we can trade cloth for corn. It pays us to produce cloth for export, and trade it for corn, if (and only if) a bushel of corn can be purchased from another country for fewer than five yards of cloth, transportation costs included.

Any foreign country needs to make the same sort of comparison. This implies, surprisingly, that the question of absolute advantage (which country requires fewer labor hours per yard or per bushel) drops out of the picture. An opportunity for beneficial trade of our cloth for their corn requires only that our cloth-cost of producing corn is higher than theirs, not that our labor hours per yard is lower or that their labor hours per bushel is lower. If their cloth-cost of producing and delivering corn to us is less than five yards per bushel, say four yards, it pays us to specialize in cloth and trade for their corn, and for them to do the reverse. They have a *comparative* advantage in

²⁰ Quoted by Irwin, *Against the Tide*, p. 89.

corn (a lower cloth-cost) and correspondingly we have a comparative advantage in cloth. In this two-country model, where the price we pay is whatever we two countries agree upon, any price between four and five yards per bushel is mutually agreeable, because we are willing to pay anything less than five, and they are willing to accept anything more than four.

The principle that mutually beneficial trade rests on comparative and not absolute advantage was expressed as early as 1815 by Robert Torrens in his *Essay on the External Corn Trade*. In Torrens's example, it pays England to buy corn from Poland even though English soil is more fertile than Polish soil – in terms of bushels yielded from a given input of labor and capital – when the corn output from English soil is worth less on the world market than the cloth England could produce from the same input of labor and capital. David Ricardo in his *On the Principles of Political Economy* (1817) and James Mill in an encyclopedia article on colonies (1818) completed the exposition of the principle by explicitly comparing the output trade-off ratios of the two countries. In Ricardo's famous example, it pays England to trade its cloth for Portugal's wine because it has a comparative advantage in cloth, even though Portugal has an absolute advantage in both commodities.²¹

Despite this advance, Irwin has noted that in the Corn Law debates most free-trade economists continued to rely on "the more simple and intuitive efficiency argument associated with absolute advantage (for example, that Poland was the lowest cost source of grain)," where "cost" was understood as physical inputs used and not the value of alternative output forgone.²² The distinction between absolute and comparative advantage was a subtlety the free traders could usually do without.

Satire was an effective method for exposing the intellectual emptiness of the protectionist position. As a *reductio ad absurdum* of the protectionist position, the popular French economist Frederic Bastiat in 1845 offered a fictional petition "from the Manufacturers of Candles" to the French legislature. The petition began:

Gentlemen:

You are on the right track. You reject abstract theories and have little regard for abundance and low prices. You concern yourselves mainly with the fate

²¹ Ibid., pp. 90–1. In recognition of Ricardo's contribution, and of the importance that the principle of comparative advantage has for explaining generally why households specialize and trade, and thus want to form societies rather than live in isolation, Ludwig von Mises dubbed the principle "the Ricardian Law of Association."

²² Ibid., pp. 91–2.

of the producer. You wish to free him from foreign competition, that is, to reserve the *domestic market* for *domestic industry*.

The petitioners then offered the legislature “a wonderful opportunity” for extending this policy. They should protect French candlemakers against the unfair competition of “a foreign rival” who is harming their business by “flooding the domestic market” with light “at an incredibly low price” – namely, the sun. The remedy for the unfair competition against domestic candles from foreign sunshine was an import restriction: “We ask you to be so good as to pass a law requiring the closing of all windows, dormers, skylights, ... through which the light of the sun is wont to enter houses, to the detriment of the [candlemaking] industries.” Restrictions against the sun would create jobs: “First, if you shut off as much as possible all access to natural light, and thereby create a need for artificial light, what industry in France will not ultimately be encouraged?” The greater use of animal fat to make candles will promote livestock agriculture. The greater use of vegetable oil will boost the olive-growing industry. The greater use of whale oil will encourage whaling and shipbuilding. The manufacturers of gilded candlesticks in Paris will prosper.

Bastiat’s candlemakers shrewdly anticipated and answered the Smithian free-trade objection to their proposal:

Will you tell us that, though we may gain by this protection, France will not gain at all, because the consumer will bear the expense?

We have our answer ready:

You no longer have the right to invoke the interests of the consumer. You have sacrificed him whenever you have found his interests opposed to those of the producer. You have done so in order *to encourage industry and to increase employment*. For the same reason you ought to do so this time too.

Directly shutting out the free sunshine, the candlemakers pointed out, makes no less sense than France’s policy of shutting out oranges from Portugal on the grounds that French oranges cannot match their low price. The Portuguese can sell oranges for half the French price only because their orchards receive abundant free sunshine, whereas French orange growers must incur the expense of using artificial heat. So “if the fact that a product is *half* free of charge leads you to exclude it from competition, how can its being *totally* free of charge induce you to admit it into competition?”²³

²³ Frederic Bastiat, “A Petition,” in Bastiat, *Economic Sophisms* [first French ed. 1845], trans. Arthur Goddard (Irvington-on-Hudson, NY: Foundation for Economic Education, 1996). Available online at <http://www.econlib.org/library/Bastiat/basSoph3.html>.

POPULAR AGITATION AGAINST THE CORN LAW, DERIVED
FROM SMITHIAN POLITICAL ECONOMY

In an expression of popular opposition to Britain's Corn Law, the Sheffield Mechanics' Anti-Bread-Tax Society issued a declaration, published in 1833, using Adam Smith's language of monopoly and his critique of agricultural landlords who supported the law as privilege seekers. The declaration emphasized that the law, by raising the price of corn, reduced the real incomes of manufacturers and workers. It represented "an act of national suicide to restrict the exchange of manufactured goods for corn" because it "restricts the necessities and comforts of life." It followed that "the present Corn Law, while it enables a few thousand landed annuitants [landlords] to convert the general loss into a temporary, but ultimately fatal gain to themselves, is destructive of every thing which is valuable to us as men." The signers of the declaration pledged that "we will, by all the legal means in our power, oppose the horrible anti-profit law, *alias* Corn Law, and never remit in our exertions, until the monopoly of the first necessary of life be utterly destroyed."²⁴

The declaration was published in a popular book of anti-Corn-Law poetry (really!) by one Ebenezer Elliot, who in a later volume described himself as "the Bard of Freetrade."²⁵ The best of Elliot's poems – in terms of economics content – emphasized that the Corn Law not only impoverished producers and consumers in order to enrich landlords, but also that its deadweight losses destroyed national income:

THE TAXED CAKE.

GIVE, give, they cry – and take!
For wilful men are they
Who tax'd our cake, and took our cake,
To throw our cake away.

The cake grows less and less,
For profits lessen, too;
But land will pay, at last, I guess,
For land-won Waterloo.²⁶

²⁴ As printed in Ebenezer Elliott, *The Splendid Village: Corn Law Rhymes and Other Poems* (London: Benjamin Steill; Sheffield: J. Pearce, 1833), pp. 55–8. Available online at http://www.gerald-massey.org.uk/elliott/c_poems_1.htm#059.

²⁵ Ebenezer Elliott, *More Verse and Prose by the Cornlaw Rhymer*, vol. 1 (London: Charles Fox, 1850), p. v.

²⁶ This is presumably a dig at the duke of Wellington, the victor over Napoleon at the Battle of Waterloo in 1815, who at the time strongly supported the Corn Law in Parliament.

They mix our bread with bran,
 They call potatoes bread;
 And, get who may, or keep who can,
 The starved, they say, are fed.

...

Oh, Landlord's Devil, take
 Thy own elect, I pray,
 Who tax'd our cake, and took our cake,
 To throw our cake away.²⁷

Overshadowing the Sheffield Mechanics' Anti-Bread-Tax Society and other local groups was the Anti-Corn-Law League. Established by seven Manchester businessmen in 1838, the league quickly established hundreds of chapters throughout the country. Its leaders were Richard Cobden and John Bright, who both gave speeches across the country making the case for free trade and outright repeal of the Corn Law. Cobden was elected to Parliament in 1841 and soon became known as an effective debater. One pro-Corn-Law newspaper regretfully reported seeing in Parliament "the landowners of England, the representatives by blood of the Norman chivalry, shrinking under the blows aimed at them by a Manchester money-grubber." Cobden often emphasized how the Corn Law redistributed wealth from the consuming majority to the landowning minority and in one speech remarked that if "a copy of the statutes were sent to another planet, without one word of comment, the inhabitants of that sphere would say at once, 'These laws were passed by landlords.'"²⁸

Prime Minister Robert Peel resisted the repeal of the Corn Law but was moved by the force of Cobden's arguments and by the evident misery caused by the high price of bread in a day when bread purchases took up a large part of a poor family's budget. During a parliamentary debate in 1843 he was compelled to admit the logic of the Smithian case for unilateral free trade: "I am bound to say that it is our interest to buy cheap, whether other countries will buy cheap or no."²⁹ The impoverishing consequences of the Corn Law became devastating during the Potato Famine of 1845. Peel switched sides,

Wellington reversed himself for pragmatic political reasons in 1846 and helped the repeal act through the House of Lords.

²⁷ Eliott, *Splendid Village*, p. 62. *Wilful* is the spelling in the original.

²⁸ Edgar Sanderson, *The British Empire in the Nineteenth Century*, vol. 3 (London: Blackie & Son, 1897), p. 80.

²⁹ Quoted by Richard Ebeling, "Free Trade, Peace, and Goodwill among Nations: The Sesquicentennial of the Triumph of Free Trade," *Freedom Daily* (June 1996), <http://www.fff.org/freedom/0696b.asp>.

defying the majority of his own Tory Party, and Parliament repealed the Corn Law in 1846. The success of the Anti-Corn-Law League at securing repeal after only eight years of agitation has been described by one historian as a testament to the power of economic ideas, “a proof of what may be accomplished with the weapons of rhetoric and reason, wielded by able, enlightened, virtuous, and courageous men.”³⁰ Later German socialist writers paid Cobden and Bright an unintended tribute when they denounced the ideas of free trade and laissez-faire as “Manchesterism.”³¹

THE INFANT INDUSTRY ARGUMENT FOR PROTECTION, AND ADAM SMITH’S REBUTTAL

Perhaps the longest-lived case for making an exception to free trade is the *infant industry argument*, dating back to mercantilist writers from the mid-1600s and still advanced today. A current heterodox economist who has embraced the argument, Ha-Joon Chang of the University of Cambridge, has explained the infancy metaphor this way: “[J]ust as children need to be nurtured before they can compete in high-productivity jobs, industries in developing countries should be sheltered from superior foreign producers before they ‘grow up.’ They need to be provided with protection, subsidies, and other help while they master advanced technologies and build effective organisations.”³²

Proponents of the infant industry argument call for temporary tariffs or quotas to encourage and protect domestic firms entering a new field, when those firms are not yet capable of withstanding competition from established foreign producers but are reasonably expected – given protection for some length of time – to learn how to lower their costs and thereby mature into viable firms that contribute to national prosperity. John Stuart Mill thought that the infant industry case constituted a legitimate theoretical qualification to the case for free trade, and his position was later endorsed by Henry Sidgwick, as discussed in a later section.³³ When England led the

³⁰ Sanderson, *British Empire in the Nineteenth Century*, p. 81.

³¹ See Ralph Raico, *Classical Liberalism and the Austrian School* (Auburn, AL: Mises Institute, 2010), p. 40.

³² Ha-Joon Chang, “Protectionism ... the truth is on a \$10 bill,” *Independent* (23 July 2007), <http://www.independent.co.uk/news/business/comment/ha-joon-chang-protectionism-the-truth-is-on-a-10-bill-458396.html>. The title of the essay refers to Alexander Hamilton, pictured on the ten-dollar bill and a supporter of the argument. For elaboration see Chang, *Bad Samaritans: Rich Nations, Poor Policies, and the Threat to the Developing World* (New York: Random House, 2007).

³³ Irwin, *Against the Tide*, pp. 115, 128–32. Later in his career Mill considered explicit subsidies a safer way to support infant industries, because explicit subsidies were less likely than import tariffs or quotas to be kept in place too long; see *ibid.*, p. 129.

world in industrialization, during the eighteenth and nineteenth centuries, the argument provided the intellectual rationale for protectionist policies in countries that wanted to catch up to England by developing their own manufacturing industries. Two of its leading spokesmen were Alexander Hamilton in the United States, circa 1790, and Friedrich List in Germany, circa 1840.

Adam Smith rejected the infant industry argument for failing his basic make-or-buy test. He made the important point that to justify the investment of resources in protecting an infant industry, the industry's future returns must equal or exceed the returns available on alternative investments. He granted the supposition that an advanced country's cost advantage in a certain line of manufacturing may be due not to its natural resources, but to better technology that can be learned at some cost by another country. The eventual payoff from going through the learning period will not be worth the initial cost, Smith argued, if the learning period requires tariff protection. Tariff-incentivized investment in the infant industry diverts capital from other industries that otherwise have higher payoffs. Smith implied that if the anticipated returns to investment in the infant industry were actually equal to or higher than the normal returns to alternative investments, then private investors would not need the tariff. They would gladly advance the funds necessary to cover the negative cash flows of the industry's initial years, as they do for any investment that promises to repay those outlays with normal-or-greater returns.

The deadweight cost of tariffs meanwhile reduces the nation's total real income and thereby slows its capital formation. Even if the infant industry will become viable after years of protection, therefore, in light of the opportunity cost of diverting capital plus the deadweight cost of the tariff, "it will by no means follow that the sum total, either of its [the nation's] industry, or of its revenue, can ever be augmented by any such regulation." Production is diverted and reduced rather than augmented in total. The infant industry argument fails the make-or-buy test: "As long as one country has those [manufacturing] advantages, and the other wants them, it will always be more advantageous for the latter, rather to buy of the former than to make."³⁴

ALEXANDER HAMILTON'S CASE AGAINST FREE TRADE

Alexander Hamilton, even before he became the first secretary of the Treasury of the United States, dismissed the Smithian case for free

³⁴ Smith, *Wealth of Nations*, p. 458.

trade out of hand. In 1781–2, just before the end of the War of American Independence, he published a series of six essays recommending the kind of national government that the thirteen states should create. The fifth of these essays rejected free trade on the grounds that no advanced nation of the world currently practiced it:

There are some who maintain that trade will regulate itself, and is not to be benefited by the encouragements or restraints of government. Such persons will imagine that there is no need of a common directing power. This is one of those wild speculative paradoxes, which have grown into credit among us, contrary to the uniform practice and sense of the most enlightened nations.

Contradicted by the numerous institutions and laws that exist everywhere for the benefit of trade, by the pains taken to cultivate particular branches and to discourage others, by the known advantages derived from those measures, and by the palpable evils that would attend their discontinuance, it must be rejected by every man acquainted with commercial history.

Hamilton then sounded a mercantilist leitmotif – that the nation should export more than it imports – followed immediately by the infant industry theme:

To preserve the balance of trade in favor of a nation ought to be a leading aim of its policy. The avarice of individuals may frequently find its account in pursuing channels of traffic prejudicial to that balance, to which the government may be able to oppose effectual impediments. There may, on the other hand, be a possibility of opening new sources, which, though accompanied with great difficulties in the commencement, would in the event amply reward the trouble and expense of bringing them to perfection. The undertaking may often exceed the influence and capitals of individuals, and may require no small assistance, as well from the revenue as from the authority of the state.³⁵

As secretary of the Treasury under President George Washington, Hamilton presented Congress with a *Report on Manufactures* in 1791. It was clear that Hamilton had read *The Wealth of Nations*.³⁶ Smith in 1776 reasonably believed that America could buy manufactured goods more cheaply than make them and prudently should do so. Hamilton began his 1791

³⁵ Alexander Hamilton, *The Continentalist* No. V (18 April 1782), in *The Works of Alexander Hamilton*, ed. Henry Cabot Lodge, Federal Edition, vol. 1 (New York: G. P. Putnam's Sons, 1904), pp. 267–9. Available online at <http://oll.libertyfund.org/title/1378/64156>.

³⁶ The *Report on Manufactures* did not refer to Smith by name but did quote him in one place without naming the author quoted. Hamilton closely followed the outline of Smith's discussion on several topics (physiocracy, division of labor, banking) even where he rejected Smith's position. For the textual evidence see Edward G. Bourne, "Alexander Hamilton and Adam Smith," *Quarterly Journal of Economics* 8 (April 1894), pp. 328–44.

report with an implicit rejoinder to Smith: "The expediency of encouraging manufactures in the United States, which was not long since deemed very questionable, appears at this time to be pretty generally admitted."³⁷ He went on to make an infant-industry argument for trade protection and subsidies to manufacturing.

Hamilton again addressed the Smithian "proposition, that industry, if left to itself, will naturally find its way to the most useful and profitable employment," from which "it is inferred that manufactures, without the aid of government, will grow up as soon and as fast as the natural state of things and the interest of the community may require." He now rejected the proposition mostly on the grounds that the "superiority antecedently enjoyed by nations who have preoccupied and perfected a branch of industry," and "the gratuities and remunerations which other governments bestow" on their own manufacturers meant that for any new domestic manufacturing industries "to contend with success, it is evident that the interference and aid of their own governments are indispensable."³⁸ But a particular domestic industry's inability to survive without subsidy and the desirability of the subsidy are two different questions. Hamilton here begged the question of whether it was desirable to sink taxpayer resources into domestic manufacturing given that imported manufactured goods could be had more cheaply. He never effectively answered Smith's argument that if subsidies or other trade restrictions are needed to create domestic factories, then creating domestic factories must be a losing proposition.

FRIEDRICH LIST'S CASE FOR PROTECTING INFANT INDUSTRIES

Hamilton's *Report on Manufactures* heavily influenced Friedrich List, whom Irwin has called "by far the most popular proponent of protection in newly industrializing countries," adding that List's 1841 book *The National System of Political Economy* "attained the status within protectionist circles that the *Wealth of Nations* had achieved among free traders."³⁹ A German historical economist and forerunner of the German historical school, List thought that manufacturing was special. He founded his case for encouragements to infant manufacturing industries not on abstract economic theory, which he disparaged, but entirely on historical examples. History

³⁷ Alexander Hamilton, "Report on Manufactures" in *Works*, vol. 4, p. 70.

³⁸ *Ibid.*, p. 106.

³⁹ Irwin, *Against the Tide*, p. 124.

showed him that industrial development was the key to “productive capital, wealth, and national powers,” and that protection was the key to industrial development in nations that were suited for industry. List believed in free trade, he said, but only once the playing field was level: “[T]he less advanced nations must first be raised by artificial means to that stage of cultivation to which the English nation has been artificially elevated.”⁴⁰

Adam Smith’s criticism of the infant industry argument, List argued, “has not considered the influence of manufactures on the internal and external commerce, on the civilization and power of the nation, and on the maintenance of its independence, as well as on the capability arising from these of gaining material wealth.” He believed that the returns from protecting infant manufacturing industries easily repay the costs, “that although measures of protection require sacrifices of material goods for a time, these sacrifices are made good a hundred-fold in powers, in the ability to acquire values of exchange, and are consequently merely reproductive outlay by the nation.”⁴¹ List’s enthusiastic but unsubstantiated claim of “hundred-fold” returns did not persuade many economists as an answer to Smith. Without citing List by name, the free trader Henry George suggested that arguments like List’s rested on mistaking the direction of causation in historical development. Manufacturing is naturally “best developed in countries of dense population and accumulated wealth,” but it is an error “to imagine that manufacturing brings population and wealth,” just as it would be an error to imagine that because big cities have splendid opera houses, a small town can more rapidly develop itself by spending tax revenues on building a splendid but loss-making opera house.⁴²

HENRY SIDGWICK’S THEORETICAL ARGUMENT AND RECENT LITERATURE

The hint of a more sophisticated development of the infant industry argument, as a theoretical possibility, came from the utilitarian philosopher and political economist Henry Sidgwick of the University of Cambridge. Sidgwick’s *Principles of Political Economy* (first edition 1883) was an important stepping stone between John Stuart Mill’s principles text (first edition 1844) and Alfred Marshall’s (first edition 1890). Sidgwick devoted a chapter

⁴⁰ Quoted in *ibid.*, pp. 126–7.

⁴¹ *Ibid.*

⁴² Henry George, *Protection or Free Trade?* (New York: Appleton, 186), p. 155. Quoted in Irwin, *Against the Tide*, p. 130.

to arguing that, as his section heading put it, “Temporary Protection, though not practically to be recommended, is under certain circumstances defensible in abstract economic theory.”

Sidgwick’s abstract theoretical version of the infant industry argument implicitly appealed to a problem of market failure in the presence of a positive learning externality. The social returns from investing in an infant industry might more than repay the cost, he wrote, “yet the initial outlay, that would be required to establish the industry without protection, could not be expected to be ultimately remunerative to any private capitalists who undertook it.” (As we noted in the previous chapter, Adam Smith accepted that this kind of problem of divergence between social and private returns existed in cases like bridges and canals.) The private capitalists could not capture all the returns “if the difficulties of introducing the industry were of such a kind that, when once overcome by the original introducers, they would no longer exist for others or would exist in a much smaller degree.”⁴³ That is, copycat domestic producers could free-ride on what was learned by the pioneering domestic producers, quickly driving down the price of the manufactured goods and thereby denying the pioneers a sufficient reward for bearing the costs of learning by doing. Temporary tariff protections for the infant industry could in principle correct the externality and make the nation more prosperous.

Sidgwick’s discussion was brief. He left it to later theorists to try to explain how copycat domestic producers might learn gratuitously from pioneer domestic producers yet be unable to learn gratuitously from the foreign producers against whom protection was sought. He did not consider the point, made by later economists, that a targeted subsidy will have a smaller deadweight cost than tariff protection in the case hypothesized. The general problem of the nonfalsifiability of market failure claims, noted in the previous chapter, is present in spades in Sidgwick’s scenario. By the nature of the supposed case, the most well-meaning government will lack the hard information on costs and returns that it would need to “pick winners” from among the many potential infant industries all clamoring for protection. Sidgwick did recognize the public choice problem that opportunistic firms will seek to gain and keep tariff protection forever no matter the impact on society as a whole, which is why he advised that temporary protection was “not practically to be recommended.”

⁴³ Henry Sidgwick, *The Principles of Political Economy*, 2nd ed. (London: Macmillan, 1887), p. 489. Quoted by Irwin, *Against the Tide*, p. 131.

In recent decades Paul Krugman and other trade theorists have built analogous cases in principle for national enrichment through protectionist policy using models of imperfect competition and increasing returns to scale in domestic industry. As had Sidgwick before him, Krugman has warned against treating these models as practical policy guides because rationales for protectionism can easily be abused. In a 1987 article he wrote: “Free trade is not passé, but ... [i]ts status has changed from optimum to reasonable rule of thumb.” Or in other words: “To establish a blanket policy of free trade, with exceptions granted only under extreme pressure, may not be the optimal policy according to the theory but may be the best policy that the country is likely to get.”⁴⁴ More recently, on his *New York Times* blog, Krugman in a similar vein wrote that “the right argument” against protectionism “is in terms of political economy. ... [I]f we go all protectionist, that will shatter the hard-won achievements of 70 years of trade negotiations – and it might take decades to put Humpty-Dumpty back together again.”⁴⁵

PROTECTIONISM IN PURSUIT OF FREE TRADE?

A defense of protectionist measures heard in recent years is their usefulness as a bargaining chip. Faced with a country that otherwise refuses to lower its own trade barriers against our goods, the argument goes, we can get them to cooperate by threatening that until they lower their barriers we will retaliate by raising *our* barriers against *their* goods. If necessary to make our threat credible, we must actually raise our barriers. In other words, to persuade a trading partner to stop dumping rocks into his harbor, we may have to dump rocks into our own harbor. Along these lines, Paul Krugman in 2009 endorsed Senator Carl Levin’s bill to impose punitive tariffs against Chinese imports into the United States until China raises the exchange value of its currency, the yuan, by a desired amount. (Whether this position was consistent with Krugman’s earlier position against protectionism has been a subject of some blogospheric debate.) Krugman saw China’s exchange-rate policy as deliberately keeping the yuan undervalued relative to the dollar, creating the equivalent of a high tariff against American exports to China combined with a subsidy to Chinese exporters.⁴⁶

⁴⁴ Paul R. Krugman, “Is Free Trade Passé?” *Journal of Economic Perspectives* 1 (Fall 1987), p. 132.

⁴⁵ Paul Krugman, “Protectionism and Stimulus (wonkish),” 1 February 2009, <http://krugman.blogs.nytimes.com/2009/02/01/protectionism-and-stimulus-wonkish/>.

⁴⁶ Paul Krugman, “Very Serious Reactions to the Levin Bill,” 30 September 2010, <http://krugman.blogs.nytimes.com/2010/09/30/very-serious-reactions-to-the-levin-bill/>; Krugman, “The RMB and the WTO,” 12 June 2010, <http://krugman.blogs.nytimes.com/2010/06/12/the-rmb-and-the-wto/>.

Milton Friedman testified against such a rock-dumping strategy on practical grounds:

Whenever you have one of these reciprocal things of, “We’re going to hurt ourselves in order to hurt you so you’ll change your rules,” it doesn’t work that way. It only works to create greater opposition to changing the rules. We ought to take care of ourselves. We ought to tend to our business.... If another country – if Japan, for a moment, imposes barriers on U.S. goods, that hurts Japan. It hurts us as well. But why do we want to make the hurt greater by imposing barriers on their goods? That hurts them too, but it also hurts us.... The best way to open the other markets is for us to set them an example.⁴⁷

DO TRADE DEFICITS POINT TO A FLAW IN FREE TRADE?

The creation of the U.S. Trade Deficit Review Commission, the panel before which Friedman testified in 1999, reflected concern over the fact that for much of the postwar period the United States experienced a “balance of payments deficit” or “current account deficit” in international trade. The dollar value of goods and services imported into the United States exceeded the dollar value of goods and services exported. As a matter of basic accounting, every purchase is paid for. A “trade deficit” means that not all imports of goods and services are being offset by exports of goods and services. There are two other ways that the difference might be paid for: with exports of currency or with exports of financial claims.

The cumulative U.S. current account deficit over 2005–9 inclusive totaled \$3.3 trillion. Only a trivial share, perhaps 3.5 percent of the deficit, was financed by exporting Federal Reserve Notes.⁴⁸ Within an international common currency area, such as the Eurozone, flows of reserve money play an important equilibrating role, as they historically did within the international gold standard via the price-specie-flow mechanism discussed in [Chapter 11](#). The United States shares a common currency today with only a few officially and unofficially “dollarized” areas. Under floating exchange rates with the rest of the world, U.S. purchases of wine from an Italian winery (say) do not result in a literal outflow of dollars to Italy, but in the swapping of dollars in the foreign exchange market, either by

⁴⁷ Friedman, “Question and Answer Session with Milton Friedman,” pp. 127–8.

⁴⁸ About two-thirds of Federal Reserve Notes are estimated to circulate outside the United States. Growth in the stock of Federal Reserve Notes in circulation during the years 2005–9 inclusive was \$171 billion, of which two-thirds is \$114 billion. Estimated currency exports of \$114 billion thus covered only about 3.5% of the trade deficits. Data from Federal Reserve Bank of St. Louis FRED, data series Currency in Circulation, and from the Bureau of Economic Analysis.

the importer or by the exporter, for the euros that the winery ultimately wants to receive. The exchange rate moves to equate the values of the overall dollar volumes offered and demanded in exchange for euros and other currencies.

The other 96.5 percent of the U.S. trade deficit corresponded to other financial exports, namely, sales of IOUs (government and corporate bonds) and sales of ownership claims (shares in corporations, real estate titles) to assets that remained in the United States. A current account deficit mirrors a capital account surplus under floating exchange rates. The economic forces that create international financial flows (borrowing from abroad) can be thought of as the fundamental drivers, with the trade deficit only a side effect or symptom. When foreigners want to buy more financial claims from the United States than Americans want to buy from abroad, that enhances the exchange value of the dollar, making U.S. exports relatively expensive on world markets, giving rise to a trade deficit for the United States.

Whether it is good for a regional or national economy to be a net borrower from the rest of the world is much like asking whether it is good for a household to be a net borrower. It depends on the reason for the borrowing. Borrowing for profitable investment (returns greater than the interest to be repaid) promotes future prosperity, but borrowing for unprofitable investment or current consumption does the reverse. If financial capital flows into a region because investment opportunities are unusually attractive, the corresponding trade deficit signals good prospects for future economic prosperity. But if a national economy borrows heavily from abroad over an extended period merely to fund a national government that runs a chronically large budget deficit, that is a different story. The capital inflow is now funding government spending, which typically consumes current output (or transfers it to consumers) rather than profitably investing it. (Capital formation projects take up only a small fraction of national government spending.) The corresponding trade deficit now signals a policy that promises reduced prosperity ahead.⁴⁹

Friedman pointed out to the Trade Deficit Review Commission that imposing tariffs or quotas to reduce a trade deficit will not only reduce prosperity but fail to achieve its goal. Because tariffs do not reduce the government's borrowing requirement or increase the domestic public's saving, they will not reduce borrowing from abroad and thus will not reduce the

⁴⁹ The same is true when domestic borrowing for household consumption exceeds domestic savings.

corresponding trade deficit.⁵⁰ With or without tariffs a country may thus exhibit the “twin deficits syndrome”: a chronically large trade deficit driven by a chronically large government budget deficit. We discuss the economics of budget deficits in the next chapter.

⁵⁰ See Friedman, “Question and Answer Session with Milton Friedman,” p. 119.

From Pleasant Deficit Spending to Unpleasant Sovereign Debt Crisis

In November 2010, the economist George S. Tavlas of the Bank of Greece rose to speak at a monetary policy conference being held in Washington, D.C. He began his presentation by remarking dryly: “It’s a pleasure to be in the United States again, which more than ever feels like being at home.” He paused. As they got the joke, members of the audience laughed – a bit nervously. To make sure that nobody missed his meaning, Tavlas continued: “It’s not often that I get to travel to a country that has fiscal deficits that remind me of those of Greece.”¹

SOVEREIGN DEBT CRISES HIT GREECE AND IRELAND

A sovereign debt crisis hit Greece in fall 2009. With its current budget deficit running above 13 percent of GDP and its accumulated debt rising to 113 percent of GDP, Greek government bonds fell to “junk bond” status. In April 2010 the market yield on two-year Greek government bonds rose above 12 percent, reflecting the market’s perception of a high probability of default.² At such high borrowing rates, Greek taxpayers faced a *debt trap*. When a government rolls over its debt at interest rates above the economy’s growth rate, the debt compounds faster than GDP merely from debt service, making the debt-to-GDP ratio grow ever higher, the default premium in the interest rate on borrowings rise ever higher, and debt service consume ever more of GDP. Unless budget deficits are trimmed until the deficit as a percentage of GDP no longer exceeds the GDP growth rate, or large gifts arrive from outside, repayment in full becomes impossible.

¹ Video of the panel is available at <http://www.cato.org/events/monconf2010/program.html>.

² “Q&A: Greece’s Economic Woes,” BBC News (2 May 2010), <http://news.bbc.co.uk/2/hi/business/8508136.stm>.

A similar fiscal crisis confronted Ireland in fall 2010, with yields on ten-year Irish government bonds rising above 8 percent. Yields also climbed on the government bonds of Portugal and Spain, raising fears that they might be next to face refunding crises.³ To stave off immediate default, that is, failure to make interest payments when due, the governments of Greece in May 2010 and of Ireland in November 2010 accepted “rescue” refinancing packages cobbled together by the European Union, the European Central Bank, and the IMF. In May 2011 Portugal’s government accepted a similar package. Greece in July 2011 received a second “rescue” package. In October 2011 a “Grand Plan” was announced under which banks holding Greek sovereign bonds “agreed” to accept a 50% loss of principal, a massive default.⁴

Meanwhile in Asia, the net debt of Japan’s national government reached a remarkable 181 percent of GDP at the end of fiscal year 2010. The debt ratio continued to mount, with new borrowing equal to nearly half of government spending in the 2010 and 2011 budgets. Japanese government bond yields remained low, but Japan’s vice finance minister, Yoshihiko Noda, acknowledged in April 2010, “There is a risk that the nation’s finances will collapse once yields start to rise.”⁵

Concerns soon arose about the fiscal path of the United States, although its bond yields also remained low for the time being (below 2 percent on five-year bonds). The federal government ran record peacetime budget deficits in fiscal years 2009 and 2010, respectively, 10 and 9 percent of GDP, and anticipated another deficit of 10 percent in 2011.⁶ The federal government’s borrowing in 2009 and 2010 took up amounts equal to 60 percent and 49 percent, respectively, of the economy’s gross private savings. In just five years, between mid-March 2006 and mid-March 2011, the dollar volume of federal debt held by the public *doubled*, rising to \$9.6 trillion from \$4.8 trillion. The ratio of debt to GDP reached 62 percent, the first time

³ “Irish Debt Crisis: Timeline,” *Telegraph.co.uk* (15 November 2010), <http://uk.finance.yahoo.com/news/irish-debt-crisis-timeline-tele-07e8f024c223.html>; “Irish/German Bond Yield Spread at Euro Life High,” *Reuters.com* (10 Nov 2010), <http://www.reuters.com/article/idUSLDE6A90LA20101110>.

⁴ “Timeline: The Unfolding Eurozone Crisis,” BBC News, available online at <http://www.bbc.co.uk/news/business-13856580>.

⁵ Ministry of Finance, *Japan’s Fiscal Condition* (December 2010), <http://www.mof.go.jp/english/budget/e20101224b.pdf>; Toru Fujioka, “Japan’s Sovereign Credit Rating at Risk as Debt Burden Swells, Fitch Says,” *bloomberg.com* (22 April 2010), <http://www.bloomberg.com/news/2010-04-22/japan-s-sovereign-credit-is-under-downwards-pressure-on-debt-fitch-says.html>.

⁶ Lori Montgomery, “Record U.S. Deficit Projected This Year,” *Washington Post*, 27 January 2011, p. A1.

the federal-debt-to-GDP ratio had exceeded 50 percent since just after the Second World War.⁷ And the official federal debt was just the tip of the iceberg. A writer at *Forbes.com* reported in 2009 an estimate that, when one adds in the debts of state and local governments and of government-backed enterprises like Fannie Mae and Freddie Mac, “the total public debt is now at 141% of GDP... Add the unfunded portion of entitlement programs [Social Security, Medicare, Medicaid] and we’re at 840% of GDP.”⁸

A large chunk of the U.S. federal debt growth in 2007–10 was cyclical, due to a deep recession that reduced federal revenues and automatically triggered some additional spending. But a sizable part of the debt growth has been noncyclical or “structural,” as indicated by the federal budget’s having been in deficit for thirty-six of the most recent forty years, and by federal spending in excess of revenues even at the peak of the boom in 2007.

The federal government’s structural deficit was scheduled to keep growing. Under the Congressional Budget Office’s (CBO’s) “alternative fiscal scenario,” of July 2010, in which tax revenues remain at 19 percent of GDP (which slightly exceeds their average over recent decades), and “Medicare’s payments to physicians rise over time” as they have in the past, the projection was gloomy:

By 2020, debt would equal nearly 90 percent of GDP. After that, the growing imbalance between revenues and noninterest spending, combined with the spiraling cost of interest payments, would swiftly push federal debt to unsustainable levels. Debt held by the public would exceed its historical peak of about 110 percent of GDP by 2025 and would reach about 180 percent of GDP in 2035.

Add the assumption that future annual appropriations remain “the same share of GDP that they were in 2010,” about 25 percent, implying a stream of budget deficits at about 6 percent of GDP, and the debt would grow even

⁷ “Debt held by the public” excludes Treasury debt held by the Federal Reserve System, by the Social Security System, or by other federal agencies but includes debt held by foreign entities. Data sources: Congressional Budget Office, “Federal Debt and the Risk of a Fiscal Crisis,” *Economic and Budget Issue Brief*, 27 July 2010; U.S. Treasury, *Final Monthly Treasury Statement of Receipts and Outlays of the United States Government for Fiscal Year 2010*, <http://www.fms.treas.gov/mts/mts0910.pdf>; Congressional Budget Office, “Federal Debt and Interest Costs: A CBO Study,” December 2010; FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, series Gross Domestic Product GDP, Gross Private Saving GPSAVE, and Federal Surplus or Deficit FYFSD; the U.S. Treasury’s “The Daily History of the Debt” Web site, <http://www.treasurydirect.gov/NP/NPGateway>.

⁸ Bert Dohmen, “Trillions of Troubles Ahead” (18 December 2009), <http://www.forbes.com/2009/12/18/government-budget-deficit-personal-finance-financial-advisor-network-treasury-debt.html>.

faster, such that “debt held the public would total nearly 100 percent of GDP by 2020.”⁹

These forecasts of mounting debt for the United States were especially ominous in light of recent research by the economists Carmen Reinhart and Kenneth Rogoff warning that debt above 90 percent of GDP is associated with substantially lower real economic growth. As they summarized the findings from their cross-country study, although “the relationship between government debt and real GDP growth is weak for debt/GDP ratios below a threshold of 90 percent of GDP,” they find that “[a]bove 90 percent, median growth rates fall by one percent, and average growth falls considerably more.”¹⁰

Some members of the U.S. public, an agency of the federal government, and at least one bond rating firm became concerned. New federal spending programs (financial and auto industry bailouts, pork-filled “stimulus,” health care) and ballooning debt helped to trigger the “Tea Party” protests of 2009 and 2010 against what was seen as fiscal irresponsibility. The Congressional Budget Office warned in its July 2010 report that a “growing level of federal debt would also increase the probability of a sudden fiscal crisis, during which investors would lose confidence in the government’s ability to manage its budget, and the government would thereby lose its ability to borrow at affordable rates.”¹¹ What happened in Greece, Ireland, and Portugal might happen in the United States. A hint of higher future borrowing costs was suggested in August 2011 when the Standard and Poor’s bond-rating agency took the unprecedented step of downgrading U.S. Treasury debt below its long-standing AAA rating.¹²

THE KEYNESIAN CHALLENGE TO ORTHODOX FISCAL THEORY

Economists have long debated the costs and benefits of government budget deficits and debt. Following the Second World War, a clash between Keynesian and “orthodox” fiscal policy views arose. The debate faded as fiscal Keynesianism won the day, then resumed as monetarist and new

⁹ Congressional Budget Office, “Federal Debt and Interest Costs.”

¹⁰ Carmen M. Reinhart, and Kenneth S. Rogoff. “Growth in a Time of Debt.” *American Economic Review* 100(2) (May 2010), 573–8.

¹¹ Congressional Budget Office, “Federal Debt and Interest Costs.”

¹² The Fitch and Moody’s agencies at the end of 2011 were said to be waiting to see whether Congress would soon act to lower the trajectory of the rising U.S. debt-to-GDP ratio. Stephan L. Bernard, “U.S. Rating Survives but Risks Heightened as Debt Committee Fails,” *Wall Street Journal* (22 November 2011).

classical economists challenged Keynesian thinking in the 1970s. Even Keynesian economists became skeptical about the practical usefulness of fiscal policy – given the sluggish way that Congresses and Parliaments adjust spending and taxes – relative to monetary policy for stabilizing the macroeconomy. With the sharp recession of 2007–9 the Keynesian side of the debate suddenly revived, and today the clash continues. On the side of greater deficit spending in the 2007–9 recession and beyond were the contemporary fiscal Keynesians, the intellectual heirs of John Maynard Keynes and his interpreters Alvin Hansen and Abba Lerner, who argue that government spending and debt growth must be too small when the unemployment rate is high.¹³ On the opposite side are the contemporary new classical and Austrian economists, the intellectual heirs of David Ricardo, Milton Friedman, and F. A. Hayek, who dispute the Keynesian arguments and worry that investment and real growth will be suppressed by rapidly growing government financed by rapidly mounting public-sector debts.¹⁴

The classical or “orthodox” view among economists was encapsulated early on in Adam Smith’s maxim “What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom.” The principles for intelligent government borrowing are analogous to those for intelligent household borrowing. Smith and Jean-Baptiste Say taught that just as a family that wishes to prosper needs to avoid consumption spending in excess of income, in order to leave resources for saving and investment, so too a national government that wishes the nation to prosper needs to avoid spending in excess of its tax revenue, in order to leave resources for the private sector to invest. There is a danger in borrowing and accumulating debt, they taught. A nation with high and mounting interest payments, like a household, can become bankrupt. The government budget, like a household budget, should therefore be balanced except in extraordinary circumstances.¹⁵

¹³ See, for example, Paul Krugman, *The Return of Depression Economics and the Crisis of 2008* (New York: W. W. Norton, 2009) and many installments of his *New York Times* column and blog; Joseph Stiglitz, “Stimulus or Bust,” *guardian.co.uk*, 10 August 2009, <http://www.guardian.co.uk/commentisfree/cifamerica/2009/aug/10/economy-stimulus-bailout>; and Brad DeLong, “We Need Bigger Deficits,” *Week*, 7 June 2010, <http://theweek.com/article/index/203760/we-need-bigger-deficits>.

¹⁴ For new classical arguments see Robert J. Barro, “Demand Side Voodoo Economics,” *Economists’ Voice* 6 (February 2009), article 5, available online at <http://www.bepress.com/ev/vol6/iss2/art5>; Kenneth Rogoff, “No Need for a Panicked Fiscal Surge,” *ft.com*, 20 July 2010; John B. Taylor, “Cutting National Debt = Stimulus,” *Daily Beast*, 20 July 2010; for an Austrian perspective see Roger W. Garrison, “The Fiscal Issues: Tax and Deficit Finance,” lecture at 2007 Mises University, <http://www.youtube.com/watch?v=ErYq3-eiN1A>.

¹⁵ For a critical summary of the orthodox view see Jesse Burkhead, “The Balanced Budget,” *Quarterly Journal of Economics* 68 (May 1954), pp. 191–216.

Keynes did not emphasize fiscal policy in *The General Theory* (1936), but Alvin Hansen in *Fiscal Policy and Business Cycles* (1941) and Abba P. Lerner in *The Economics of Control* (1944) soon worked out the fiscal-policy implications of the Keynesian income-expenditure model.¹⁶ The prominent Keynesian economist James Tobin of Yale University (1918–2002, Nobel laureate 1981) wrote about the influence of Hansen, his teacher at Harvard:

Alvin Hansen was never close to Presidents or politicians, and he never held a major government office. Yet no American economist was more important for the historic redirection of United States macroeconomic policy from 1935 to 1965. As the principal intellectual leader of the Keynesian conquest, Hansen deserves major credit for the “fiscal revolution in America.”¹⁷

In the Hansen-Lerner or “fiscal Keynesian” view, additional government spending does not compete with existing private spending for scarce resources except at full employment. Full employment is rare. It follows that the orthodox principle of ordinarily balancing the government’s budget is misconceived. Viewing the deficit as a tool for managing aggregate demand, Hansen explicitly rejected any prescription that the government budget should be balanced:

If one adopts wholeheartedly the principle that governmental financial operations should be regarded exclusively as instruments of economic and public policy, the concept of a balanced budget, however defined, can play no role in the determination of that policy.¹⁸

Lerner similarly argued that under a system of setting the deficit to achieve full employment in Keynesian fashion (an approach he labeled “functional finance”), “Though there is no room for the *principle* of balancing the budget, there is a long-run *tendency* for the budget to balance itself.”¹⁹

¹⁶ Alvin Hansen, *Fiscal Policy and Business Cycles* (New York: Norton, 1941); Abba P. Lerner, *The Economics of Control* (New York: Macmillan, 1944). See also David Colander, “Was Keynes a Keynesian or a Lernerian?” *Journal of Economic Literature* 22 (1984), pp. 1572–5.

¹⁷ James Tobin, “Hansen and Public Policy,” *Quarterly Journal of Economics* 90 (February 1976), p. 32. The quoted phrase alludes to a standard history of American fiscal debates and policy making, Herbert Stein, *The Fiscal Revolution in America*, 2nd rev. ed. (Washington, DC: American Enterprise Institute Press, 1996).

¹⁸ Hansen, *Fiscal Policy and Business Cycles*, p. 188. Quoted by Burkhead, “Balanced Budget,” p. 207.

¹⁹ Lerner, *Economics of Control*, p. 319. See also Lerner, “Functional Finance and the Federal Debt,” *Social Research* 10 (February 1943), pp. 38–51.

Jesse Burkhead elaborated in 1954 how fiscal Keynesianism overturned the principles of orthodox fiscal policy:

The Keynesian attack on the classical principles of budgeting and public finance was a logical extension of the Keynesian attack on the view that the economy tends to equilibrium at full employment. If there were unemployed resources which the private sector would not or could not employ, these resources may be put to work by the state by means of additional public outlay, which need not be matched by additional government revenue. Orthodox financial rules must be abandoned, even as orthodox economics must be abandoned.²⁰

Burkhead summarized Hansen's and Lerner's nonorthodox view of government spending in straightforward terms:

Economic activity in the government sector is not "sustained out of" private economic activity; it is an independent sector in the production of goods and services. Government outlay financed by debt creation will increase the level of national income, regardless of the productivity of the assets which may be acquired.²¹

Burkhead went on to list some of the corresponding changes that fiscal Keynesianism had wrought in professional and popular views about the government budget:

In a world in which Keynesianism abounds, one might reasonably expect that balancing the government's budget would be regarded as an outmoded policy goal. A great many other pre-Keynesian fiscal notions have pretty well gone by the boards. One seldom hears these days that a dollar of government expenditures causes a corresponding reduction of a dollar of private outlay, or that government expenditures cannot raise the level of national income, or that we can never achieve full employment by government spending.²²

ARE MOST BUDGET DEFICITS PLEASANT EVENTS?

A standard exposition of Keynesian fiscal theory appeared in the textbook *Public Finance* (first edition 1964) by the prominent Keynesian economist Otto Eckstein, economics professor at Harvard and a member of the Council of Economic Advisers during the Lyndon Johnson administration. Eckstein acknowledged, with a nod to orthodox theory, that budget deficits would be worrisome if they appeared during periods of full employment, when they might raise interest rates and crowd out private investment, reducing the

²⁰ Burkhead, "Balanced Budget," p. 206.

²¹ *Ibid.*, p. 207.

²² *Ibid.*, p. 191.

economy's productive capacity over time.²³ But fortunately, he wrote in 1973, "this situation has rarely occurred in the U.S. in peacetime."²⁴

Eckstein distinguished peacetime from wartime on the assumption that wartime causes a major spike in expenditures. In standard neoclassical analysis, deficits are prudent given a spike in spending. Under reasonable assumptions, the deadweight costs of a tax grow more than proportionally as the tax rate rises, so smoothing tax rates over time lessens their burden. Deficits reduce total deadweight losses by allowing tax rates to be smoothed, avoiding the spike in tax rates that would be necessary to balance the budget every year when there is a spike in expenditures. At the time Eckstein wrote, two-thirds of the U.S. national debt was left over from the Second World War.

Adam Smith, by contrast, did not take the path of spending as given. He particularly worried about constraining government's propensity to overspend by waging unnecessary and overly lengthy wars. Borrowing made it easier for government to overcome public resistance to war making, he warned, and therefore promoted wasteful spending that consumed capital and impoverished the nation. If a government had to finance its war making entirely out of current taxes, the cost would be more sharply felt, and so "wars would in general be more speedily concluded, and less wantonly undertaken."²⁵ David Ricardo echoed the argument.²⁶

In a period of less than full employment, the Keynesian income-expenditure model taught, deficits are a positive good. As Eckstein explained:

What about debt incurred during periods of unemployment? In this case, the real burden of deficit-financed expenditures is limited even at the time expenditures are made. Resources would have been idle, so no other outputs are foregone. In fact, output is likely to be increased by the multiplier effects of the initial spending. Thus, the creation of debt in this situation raises output and is likely to raise investment and the total growth of the economy.²⁷

Absent full employment, Eckstein suggested here, resource scarcity is not a binding constraint and deficit spending is better than a free lunch. The

²³ A well-known elaboration of the capital-reducing effects of full-employment deficits is Franco Modigliani, "Long-run Implications of Alternative Fiscal Policies and the Burden of the National Debt," *Economic Journal* 71 (December 1961), pp. 730–55.

²⁴ Otto Eckstein, *Public Finance*, 3rd ed. (Englewood Cliffs, NJ: Prentice-Hall, 1973), p. 94.

²⁵ Adam Smith, *Wealth of Nations*, vol. 2, ch. 3, <http://oll.libertyfund.org/title/119/212405/3429096>.

²⁶ David Ricardo, "An Essay on the Funding System" [1820] in *The Works of David Ricardo. With a Notice of the Life and Writings of the Author*, by J. R. McCulloch (London: John Murray, 1888), p. 186. Ricardo's statement is quoted at n. 47.

²⁷ Eckstein, *Public Finance*, p. 92.

argument seems to imply that above-normal unemployment is evenly distributed across resources: no resources in the economy are scarce unless all are fully employed.

Paul Krugman expressed the same view on his *New York Times* blog in 2009, using the phrase “normal conditions” in place of “full employment”:

Why, exactly, do we think that budget deficits are a bad thing?

The textbook answer identifies two reasons – two ways in which budget deficits now make us worse off in the future. They are:

- (1) The fiscal burden: deficits now mean higher debt later, which will have to be serviced, and that means higher taxes and/or less spending on other, presumably desirable things
- (2) Crowding out: when it runs deficits, the government competes with the private sector for funds, so deficits crowd out private investment, which reduces potential growth

All this makes sense under normal conditions. But right now we’re not living under normal conditions. We’re in a situation in which the economy is deeply depressed, and monetary policy ... [has become ineffective, which] weakens argument (1) – and it actually reverses argument (2).

... Under the kind of conditions we’re now facing, the main determinant of business investment is the state of the economy, as evidenced by the plunge in investment [during the 2007–9 recession]. This, in turn, means that anything that improves the state of the economy, including fiscal stimulus, leads to more investment, and hence raises the economy’s future potential.

That is, under current conditions deficit spending doesn’t lead to crowding out – it leads to crowding in. In fact, you could argue that the worst thing we can do for future generations is NOT to run sufficiently large deficits right now.²⁸

Debates over the extent to which government spending raises or lowers national income are discussed later in this chapter in connection with the Keynesian concept of “the multiplier.”

In contrast to the orthodox view that the government budget should be balanced except in extraordinary circumstances such as a major wartime expenditure spike, fiscal Keynesianism teaches that the budget should be balanced only when the economy is at full employment and should be in surplus only when the economy is above full employment.

Burkhead complained, during the early years of the Dwight D. Eisenhower administration in the United States, that this lesson had not sunk in:

²⁸ Paul Krugman, “Crowding in” (28 September 2009), <http://krugman.blogs.nytimes.com/2009/09/28/crowding-in/>.

The practical influence of Keynesian economics on budgeting concepts and procedures in the United States has been almost nil. We continue to be dominated by adherence to the goal of a balanced budget buttressed by the phrases and arguments of the classical economists.²⁹

The heyday of overt Keynesian influence in U.S. policy making occurred during the administrations that followed Eisenhower's, namely, those of John F. Kennedy (1961–3), Lyndon B. Johnson (1963–9), and Richard M. Nixon (1969–74). Well-known fiscal Keynesians moved from the halls of academia and think tanks to the Council of Economic Advisors. Several of them were Alvin Hansen's former Harvard students (James Tobin, Kermit Gordon, Otto Eckstein, Paul W. McCracken), and one was his former colleague (James Duesenberry), Hansen having retired in 1957. Others learned their fiscal Keynesianism elsewhere, including Walter Heller, Gardner Ackley, Arthur M. Okun, and Herbert Stein. The Kennedy-Johnson and Nixon administrations adopted, more or less officially, the Keynesian approval of deficit spending. When Nixon declared himself "a Keynesian in economics," he was offering a defense for his deficit spending. Herbert Stein (1916–99) served on the council under Nixon and later offered a generational rule of thumb regarding Keynes's influence on the council's members:

On the unavoidable subject of Keynes, the best guide is the birth date of the council members. Those born before 1915 were not Keynesians. Those born between 1915 and 1940 were Keynesians or had a strong leaning in that direction. For those born after 1940, Keynesianism was a minor and unreliable tool, to be used on some occasions but not relevant to the major problems.³⁰

WHO BEARS THE BURDEN OF DEBT?

For the main part of his analysis Eckstein assumed that the government debt was internal, entirely held by domestic households and firms, so that "we owe it to ourselves." In that case, assuming full employment, additional debt-financed government command over resources implies contemporaneously reduced private consumption (or investment) of resources by those domestic residents who buy their government's new bonds. The burden of debt-financed additional spending is in that sense felt immediately. In a

²⁹ Burkhead, "Balanced Budget," p. 212.

³⁰ Herbert Stein, *What I Think* (Washington, DC: American Enterprise Institute Press, 1998), p. 72. Stein, by the way, was the father of the actor/quizmaster/commentator Ben Stein.

later period, the taxes levied on citizen Peter to pay interest and principal on the government bonds held by citizen Paul do not reduce national consumption (except by the extent of deadweight losses) but merely shift consumption from Peter to Paul. Burkhead similarly argued that interest payments to nonresidents “may be a serious drain” for a *city* government, “But ‘costliness’ in these terms does not apply to the federal government of the United States. Here the interest payments are not made ‘abroad’; instead, they are transfer payments within the economy.”³¹

Internal financing of government debt is, however, no longer a reasonable approximation for the United States or major European countries. At the end of 2010, according to the Congressional Budget Office, domestic entities held about 53 percent of the U.S. public debt, while foreign entities held about 47 percent. The largest foreign holders were central banks and private intermediaries in China, Japan, and the United Kingdom.³² Eckstein acknowledged that borrowing from abroad – a practice he associated with developing countries – permits greater national consumption in the first period at the expense of correspondingly reduced consumption by taxpayers in later periods as interest and principal payments go abroad.

Even for an internal debt, the Keynesian focus on the national level of aggregation (“we” owe it to “ourselves”) came under criticism by James M. Buchanan beginning in 1958. Keynesian fiscal theory denied that the burden of current government resource use (under full employment) could be “shifted forward” to a later generation through internal borrowing. Buchanan argued that later-period taxpayers do in fact bear the burden of the government’s first-period resource use even when the bond buyers are internal. The bond buyers like Paul who give up command over resources in the first period do so voluntarily, indicating that they prefer the greater future command over resources that they anticipate from the interest and principal payments, so they cannot correctly be said to bear a burden. Peter and other later-period taxpayers bear the burden for the earlier government spending, not the bond purchasers and not “all of us.”

On Buchanan’s view, it makes perfect sense to say that deficit spending (on any project that provides little benefit to later generations) imposes an unfair burden on later generations. Thomas Jefferson was making sense when he wrote that the “principle of spending money to be paid by posterity ... is but swindling futurity on a large scale.”³³ Where Adam Smith had said

³¹ Burkhead, “Balanced Budget,” p. 206.

³² Congressional Budget Office, “Federal Debt and Interest Costs,” p. viii.

³³ Thomas Jefferson, “To John Taylor” (28 May 1816), in Thomas Jefferson, *The Works of Thomas Jefferson*, ed. Paul Leicester Ford, Federal Edition (New York: G. P. Putnam’s Sons,

that the principles of public borrowing are analogous to those of household borrowing, Buchanan and his coauthor Richard Wagner observed, “Keynesianism stood the Smithian analogy on its head” by teaching that the prudent family’s policy of balancing the budget in all but extraordinary circumstances is folly for the national government.³⁴

THE GOVERNMENT BUDGET CONSTRAINT AND THE INCENTIVE TO BORROW

In their 1977 book *Democracy in Deficit*, Buchanan and Wagner challenged the Keynesian messages that deficit spending is an unmixed blessing (at less than full employment) and that it imposes no burden on future generations (even at full employment). Buchanan and Wagner charged that the Keynesian fiscal policy prescription, seemingly written for implementation by philosopher-kings, was having unintended consequences in the hands of elected officials:

Keynesian economics has turned the politicians loose; it has destroyed the effective constraint on politicians’ ordinary appetites. Armed with the Keynesian message, politicians can spend and spend without the apparent necessity to tax.³⁵

The alternative they offered was a return to “the classical theory of public debt,” with its practical support for “the quasiconstitutional rule for a strict balanced budget.”³⁶

Fiscal theory begins with the government’s budget constraint. Every dollar a government spends during a fiscal year has come from one of three sources: tax revenue, borrowing, or creating money. To spell out a simple accounting identity that we will also use later in the chapter, during any fiscal year

$$G = T + \Delta D + \Delta M.$$

where G is government expenditure, T is ordinary tax revenue, ΔD is the change in the stock of debt (Δ for change in, D for debt) held by the private sector, and ΔM is the change in the stock of government-issued money

1904–5), vol. 11 (Correspondence and Papers 1808–1816), <http://oll.libertyfund.org/title/807/88161>.

³⁴ James M. Buchanan, *Public Principles of Public Debt* (Homewood, IL: Richard D. Irwin, 1958); James M. Buchanan and Richard E. Wagner, *Democracy in Deficit: The Political Legacy of Lord Keynes* (San Diego: Academic Press, 1977), pp. 3, 15–16.

³⁵ *Ibid.*, p. 4.

³⁶ *Ibid.*, p. 134.

held by the private sector (consisting of currency plus commercial bank balances at the central bank). Including money creation means that the identity includes the operations of the central bank as part of the national government. All the variables are measured in dollars per year. If we take the level of government spending and the rate of money printing as fixed, then as Buchanan and Wagner noted, “The theory of public debt reduces to a comparison between the effects of taxation and public debt issue.”³⁷

Buchanan and Wagner observed that “if an individual borrows, he incurs a personal liability.” The knowledge that his borrowing obliges him (and nobody else) to pay later, with interest, deters excessive borrowing for consumption spending.³⁸ The incentives surrounding government borrowing, they argued, are different. The burden of government borrowing will fall on future taxpayers, a different set of individuals from those who make the current decision to spend and borrow. Voters who bear a larger share of the current tax burden than they expect to bear of the future tax burden will have a bias in favor of borrowing over current taxation. A borrowing bias will affect even voters with long time horizons, if they expect that when the tax bill arrives they will have moved into a lower tax bracket or died (without making future-tax-covering bequests) or expect to have their share of the burden reduced by a growing population. The incentive to avoid excessive or irresponsible borrowing for consumption spending is thereby weaker for a democratic government than for an individual household.³⁹

In effect, Buchanan and Wagner argued, the fiscal choices of voters and politicians tend to be overly short-sighted. Fiscal orthodoxy once constrained this tendency, but fiscal Keynesianism has unleashed it.⁴⁰ By teaching that the burden of debt cannot be imposed on later generations, Keynesian theory undermined the previous moral constraint against excessive borrowing. By teaching that deficits expand national income and even “crowd in” investment when the economy is below full employment, it undermined the perception of a no-free-lunch cost constraint. The result

³⁷ Ibid. p. 15. The variable *T* also includes net proceeds from government asset sales.

³⁸ The *South Park* episode “Margaritaville” (season 13, episode 3, 2009) provides an example of excessive household borrowing. The Marsh family has bought on credit a \$200 Margaritaville blender that it cannot afford. See Matt Parker and Trey Stone, “Margaritaville” script, http://www.southparkstuff.com/season_13/episode_1303/epi1303script/.

³⁹ At \$200 per blender, the U.S. federal debt held by the public at the end of fiscal 2010 amounted to approximately 400 Margaritaville blenders (\$80,000) per household. Under CBO projections the burden was expected to reach 850 blenders per household – equivalent to a second home mortgage – by 2020.

⁴⁰ Ibid., pp. 17–19.

has been excessive government spending from the point of view of the future taxpayers who bear the costs but do not enjoy the benefits.

RICARDIAN EQUIVALENCE

To discuss in more detail the Keynesian view that fiscal policy can stimulate real output in a less-than-fully-employed economy and criticisms of that view we need to specify clearly the fiscal policy operation under discussion. Economists have devoted a great deal of discussion to the mix between taxes and debt, holding government spending and money creation constant.

- Case 1: For a given level of government spending, government replaces some current tax revenue with new debt issues. In terms of the budget identity, G is constant, T goes down, ΔD goes up by the same amount, and ΔM is constant.

Later in the chapter we will consider cases in which government spending increases.

The view that the tax cut/new debt combination of Case 1 will increase the economy's real output rests on two propositions: output is constrained by current spending, and tax cuts increase private spending. Both propositions fall directly out of the simple Keynesian income-expenditure ($C + I + G = Y$) model discussed in [Chapter 5](#). Private consumption spending (C) rises with after-tax income, which the tax cut increases. Private investment spending (I) is assumed to be given exogenously, and government spending (G) is assumed constant in the specification of the case. In the more sophisticated IS-LM model, built on contributions by Alvin Hansen and the British economist John Hicks (1904–89, Nobel laureate 1972), additional government debt may somewhat reduce investment spending by bidding up the real interest rate, thereby shrinking desired investment spending. Government borrowing “crowds out” some private investment. Ordinarily, however, the reduction in investment spending only partially offsets the additional consumption spending allowed by the tax cut. Besides, some Keynesians proposed, the effect of borrowing in driving up the real interest rate can be blunted by expansionary monetary policy.⁴¹

As macroeconomic theory became more sophisticated in the decades following Hansen and Lerner's contributions, doubts arose about the

⁴¹ In terms of the IS-LM model, “ordinarily” here means “unless the LM curve is vertical.” The monetary policy argument assumes that a more expansionary monetary policy can reduce the real interest rate (from the level it would otherwise reach) indefinitely, for as long as the government borrows.

proposition that the larger government deficit of Case 1 stimulates real output. In the course of a 1952 article discussing the implications of a macroeconomic theory in which “asset holdings have a direct influence on effective demand,” that is, in which an individual’s spending depends on his wealth, James Tobin noted that “[t]he inclusion of the interest-bearing public debt in net private balances and in total private wealth” poses a puzzle:

How is it possible that society merely by the device of incurring a debt to itself can deceive itself into believing that it is wealthier? Do not the additional taxes which are necessary to carry the interest charges reduce the value of other components of private wealth?⁴²

In other words, why should additional Treasury bonds held by the domestic public count as additional net wealth when the implied future tax liabilities completely offset the bonds’ asset value? *We owe* the debt to ourselves. In financial terms, the present value of the additional future taxes is exactly equal to the present value of the new bonds. When the Treasury auctions off a bond, the bond’s selling price is simultaneously the amount the government borrows and the present value that the auction market places on the stream of promised payments. The stream of payments promised to bondholders is exactly the stream of future obligations for taxpayers.

If we exclude Treasury bonds from net wealth, then we should expect a switch to lower taxes and more debt (Case 1) to be ineffective at raising household spending, at least through the wealth channel. Tobin went on, however, to offer reasons why the offsetting effect of future taxes on perceived wealth and current spending might be only partial, and why greater public debt might stimulate spending through other channels.

Martin J. Bailey, in a 1962 textbook, questioned in more detail whether Case 1 deficits would raise aggregate spending. Noting the present-value equivalence between the government’s additional borrowing and the implied stream of additional future tax obligations, he pointed out that if taxpayers wanted to prepare for their additional future obligations by saving enough of their current tax cut to meet their future obligations in full, then they would have to save the entire tax cut. The switch from taxes to debt would then leave current household spending completely unchanged:

If future tax liabilities implicit in deficit financing are accurately foreseen, the level at which the total tax receipts are set is immaterial; the behavior

⁴² James Tobin, “Asset Holdings and Spending Decisions,” *American Economic Review* 42 (May 1952), pp. 109, 117. Part of this passage is quoted by Robert J. Barro, “Are Government Bonds Net Wealth?” *Journal of Political Economy* 82 (November/December 1974), p. 1096.

of the community will be exactly the same as if the budget were continuously balanced.

Bailey added an important generalization of the argument in a footnote: "The same argument applies if no repayment is expected [that is, if the debt will be rolled over in perpetuity], if the typical household plans to leave an estate of definite net income potential after taxes, for given alternatives available and given current wealth position."⁴³

Tobin's puzzle and Bailey's deficit-neutrality possibility were little noticed at the time. The propositions that new government debt implies future tax liabilities of equivalent present value, and that taxpayers who save enough meet those liabilities would neutralize a tax cut matched by additional debt, were brought squarely to the economics profession's attention in 1974 by Robert J. Barro (then at the University of Rochester, currently at Harvard University). The title of Barro's much-debated article posed the question "Are Government Bonds Net Wealth?"⁴⁴ Barro answered "no." He showed that Bailey's deficit-neutrality possibility is not just a possibility but can be derived from optimizing behavior in a model where taxpayers have planning horizons that stretch as far into the future as the implied tax stream.

Barro's result did not require that all taxpayers outlive the tax stream, so long as every household plans to leave a bequest or otherwise transfer wealth to its heirs and chooses the size of the transfer to deliver a certain after-tax income (as Bailey's footnote had proposed). Barro derived such a transfer plan from a household preference for income smoothing across generations (which he called "intergenerational altruism"). As he later put it, in his approach "households capitalize the entire array of expected future taxes, and thereby plan effectively with an infinite horizon."⁴⁵ The model Barro used was an "overlapping generations" model, descended from a model Paul Samuelson had introduced in 1958 to characterize an intergenerational tax-and-transfer system like Social Security.⁴⁶

⁴³ Martin J. Bailey, *National Income and the Price Level* (New York: McGraw-Hill, 1962), pp. 75–7. The block paragraph is quoted by Barro, "Are Government Bonds Net Wealth?" p. 1096. The point was further emphasized by Earl A. Thompson, "Debt Instruments in Both Macroeconomic Theory and Capital Theory," *American Economic Review* 57 (December 1967), pp. 1196–210.

⁴⁴ Barro, "Are Government Bonds Net Wealth?"

⁴⁵ Robert J. Barro, "The Ricardian Approach to Budget Deficits," *Journal of Economic Perspectives* 3 (Spring 1989), p. 40.

⁴⁶ Paul A. Samuelson, "An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money," *Journal of Political Economy* 66 (December 1958), pp. 467–82.

James M. Buchanan quickly pointed out that the classical economist David Ricardo had long before enunciated Barro's result. Foresighted and optimizing households, Ricardo noted, would respond to an increase in future taxes by saving just enough for themselves or their heirs to pay the future taxes, making the government's choice between present and future taxes a matter of indifference. Buchanan remarked that "the thrust of Barro's argument supports the Ricardian theorem to the effect that taxation and public debt issue exert basically equivalent effects."⁴⁷ Thereafter the Ricardo-Bailey-Barro proposition became known by Buchanan's label for it, "the Ricardian equivalence theorem," or simply as "Ricardian equivalence."

Ricardian equivalence implies that a switch from current taxation to government borrowing – an increase in the size of government debt – has no effect on the interest rate. The tax cut is entirely saved and goes entirely to purchase the new debt. The policy switch therefore neither crowds out investment nor increases consumption spending. It does not increase net borrowing from abroad, and so it has no effect on the trade deficit.

In his "Essay on the Funding System," written for a supplement to the 1820 *Encyclopedia Britannica*, David Ricardo had addressed the question of how to pay for a spike in government spending due to war. For illustration he chose £20 million as the spending figure, and 5 percent as the interest rate. He considered three financing options: (a) increase tax collections by £20 million in the same year, (b) borrow by issuing perpetual bonds and increase tax collections by £1 million per year forever to pay the interest (and only the interest) on the debt, and (c) borrow by issuing forty-five-year bonds and increase tax revenue by £1.2 million per year for forty-five years to cover the interest and pay down the principal. To put the choice in more familiar terms, the government could pay cash, take out an interest-only mortgage to be endlessly rolled over, or take out a forty-five-year amortized mortgage. The present value of the tax payments was necessarily the same (£20 million) in all three methods. Ricardo accordingly reasoned that "in point of economy there is no real difference in either of the modes, for 20 millions in one payment, 1 million per annum for ever, or 1,200,000*l.* for forty-five years, are precisely of the same value." The burden on a representative taxpayer (assumed for illustration to bear 1/20,000 of the burden, or £1000) was the same, even if the taxpayer didn't realize it:

It would be difficult to convince a man possessed of 20,000*l.*, or any other sum, that a perpetual payment of 50*l.* per annum was equally burdensome

⁴⁷ James M. Buchanan, "Barro on the Ricardian Equivalence Theorem," *Journal of Political Economy* 84 (April 1976), pp. 337–42.

with a single tax of 1000*l*. He would have some vague notion that the 50*l*. per annum would be paid by posterity, and would not be paid by him; but if he leaves his fortune to his son, and leaves it charged with this perpetual tax, where is the difference whether he leaves him 20,000*l*. with the tax, or 19,000*l*. without it? This argument of charging posterity with the interest of our debt, or of relieving them from a portion of such interest, is often used by otherwise well informed people, but we confess we see no weight in it.⁴⁸

Ricardo did not leave the argument there, with present-value equivalence. As Gerald P. O'Driscoll, Jr., pointed out in a response to Barro and Buchanan, Ricardo was arguing that the typical taxpayer does *not* regard the three funding methods as practically equivalent for himself but instead somehow expects to avoid his full share of delayed taxes. In the sentence just preceding the extract quoted, Ricardo wrote: "We are too apt to think, that the war is burdensome only in proportion to what we are at the moment called to pay for it in taxes, without reflecting on the probable duration of such taxes." Many taxpayers are myopic. Ricardo consequently did not regard the three funding methods as having equivalent political-economy implications.⁴⁹ Because taxpayers are less sensitive to the cost of a war funded by debt, he argued, funding by debt enables a government elected by taxpayers to spend more. Ricardo preferred funding entirely by current taxes in order to make the expense of the war fully apparent, so that taxpayers would pressure the government to consider the expense fully:

When the pressure of the war is felt at once, without mitigation, we shall be less disposed wantonly to engage in an expensive contest, and if engaged in it, we shall be sooner disposed to get out of it, unless it be a contest for some great national interest.⁵⁰

Buchanan and Wagner shared Ricardo's view that present-value equivalence did not mean political equivalence under democracy, because of the imperfect perception of future taxes: The Ricardian equivalence theorem was "unacceptable" as an account of actual behavior because it requires taxpayers to be better informed and longer-sighted than it is reasonable for them to be. They also doubted that complete intergenerational altruism accurately describes savings behavior by real-world taxpayers. If for either reason current taxpayers do not fully take on board the deferred taxes, then "The replacement of current tax financing by government borrowing

⁴⁸ David Ricardo, "Funding System," p. 539. 50*l* is alternative notation for £50.

⁴⁹ Gerald P. O'Driscoll, Jr., "The Ricardian Nonequivalence Theorem," *Journal of Political Economy* 85 (February 1977), pp. 207–10.

⁵⁰ Ricardo, "Funding System," p. 539.

has the effect of reducing the ‘perceived price’ of governmental goods and services” and thereby increases the quantity demanded. Such an effect is evident wherever “[t]he increase in future taxation that public debt implies will not generate constituency pressures [on legislators] comparable to those generated by increases in current taxation.”⁵¹ The very fact that elected politicians prefer borrowing to taxing implies that the two are politically nonequivalent. It is misleading to assume that the path of spending remains unchanged when we consider a switch in the financing method, because a switch toward debt financing increases the political attractiveness of additional spending.

Other economists raised a number of other objections to Ricardian equivalence in response to Barro’s 1974 paper. The main objections, as Barro later summarized them, were “the finiteness of life,” which matters to the extent that intergenerational transfers are not universal; “imperfections of private credit markets,” which make taxpayers’ discount rates higher than the government’s borrowing rate; “uncertainty about the incidence of future taxes and other variables,” which again implies a higher taxpayer discount rate; “and the distortionary nature of taxation.” Barro for his part argued that real-world departures from strict equivalence are “likely to be trivial” in magnitude, save the distorting effects (deadweight costs) of taxation. (His critics, on the other hand, argued that “the available statistical evidence is, at best, ambiguous” on Ricardian equivalence.⁵²) Because people will switch activities from periods of higher to periods of lower tax rates, Barro noted, “variations in the anticipated timing” of the future tax hikes implied by additional government debt can alter “the intertemporal allocations of work effort and consumption.”⁵³

Barro called Ricardo’s own *nonequivalence* argument a theoretical “lapse.” By sticking to Case 1, taking the path of spending as given, he avoided dealing with the Buchanan-Wagner argument that deficit financing raises the path of government spending in a democracy. As Barro summarized his message:

The Ricardian equivalence theorem amounts to the statement that the government’s fiscal impact is summarized by the path of its expenditures. Given this path, rearrangements of the timing of taxes – as implied by budget deficits – have no first-order impact on the economy. Second-order effects arise

⁵¹ Buchanan and Wagner, *Democracy in Deficit*, pp. 136–7, 139–40.

⁵² Henry J. Aaron, Barry Bosworth, and Gary T. Burtless, *Can America Afford to Grow Old? Paying for Social Security* (Washington, DC: Brookings Institute, pp. 69–70.

⁵³ Robert J. Barro, “Reflections on Ricardian Equivalence,” NBER working paper 5502 (March 1996), pp. 10, 15.

for various reasons, of which I have argued that the distorting effects of taxes are the most important. This consideration leads to the idea that tax rates on labor income and consumption ought to be smoothed over time.⁵⁴

Barro's recommendation for smoothing tax rates referred to the standard neoclassical prescription that a government should run a deficit when it faces a spike in expenditure, or a sharp crater in revenue, to avoid the greater deadweight losses from a spike in tax rates. It should run surpluses in the reverse cases. His statement about fiscal impact suggested that those who wish to constrain the size of government should seek to limit its spending, not to limit its tax revenues or its debt separately.

INCENTIVE EFFECTS OF TAXES AND THE LAFFER CURVE

A non-Keynesian case for lower taxes, at any given level of government spending, was offered in the 1980s by a collection of economic policy advocates whose ideas were labeled "supply-side economics" by contrast with the Keynesian focus on the demand side.⁵⁵ The label matched the fact that supply-side writers sometimes described themselves as reviving the intellectual heritage of the classical economists like Jean-Baptiste Say. As noted in [Chapter 5](#), Say had emphasized that sustained economic growth was about augmenting the supply of goods and services rather than about augmenting aggregate demand: "[T]he difficulty lies in supplying the means, not in stimulating the desire of consumption.... Thus, it is the aim of good government to stimulate production."⁵⁶

The supply siders' fiscal policy objective was not to lower federal tax *revenue*, but to tap into the positive incentive effects of lower tax *rates* on aggregate supply. The distinction between revenue and rate is a simple matter of arithmetic: Tax revenue is the product of (tax rate) times (tax base). For example, if the tax rate on gin is four dollars per bottle, then the tax revenue in dollars per year is (four dollars per bottle) times (the number of bottles sold per year). Supply siders emphasized the elementary proposition, a direct implication of standard supply-and-demand theory, that the tax base grows as the tax rate falls. At a two dollars per bottle tax rate, implying a

⁵⁴ Barro, "Ricardian Approach to Budget Deficits," pp. 37–54.

⁵⁵ For a favorable and personality-driven history of the movement see Brian Domitrovic, *Econoclasts: The Rebels Who Sparked the Supply-Side Revolution and Restored American Prosperity* (Wilmington, DE: ISI Books, 2009). For a varied collection of more analytical material see Richard H. Fink, ed., *Supply-Side Economics: A Critical Appraisal* (Frederick, MD: University Publications of America, 1982).

⁵⁶ Jean-Baptiste Say, *A Treatise on Political Economy*, ed. Clement C. Biddle, trans. C. R. Prinsep from the 4th French ed. (Philadelphia: Lippincott, Grambo & Co., 1855), p. 139.

lower tax-included price per bottle, a larger number of taxed bottles will be sold. (Some people will drink more gin; others will switch from bootleg gin.) It follows that, although the tax rate is halved, the tax revenue is not. Revenue might even rise. In the example, revenue will rise if sales of legal gin are so price-sensitive that more than twice as many bottled are sold. In that situation, a tax-rate cut is win-win: not only a lesser burden per bottle on taxpayers, but also higher revenues for the fiscal authority.

The economist Arthur Laffer and the journalist Jude Wanniski led the supply siders in applying this logic to income taxes. The “Laffer curve” – so named by Wanniski, who described how Laffer had hastily drawn it on a cocktail napkin during a dinner meeting at a Washington, D.C., restaurant – pictured the win-win possibility by plotting a simple relationship between tax revenue and the tax rate.⁵⁷ At a zero tax rate, revenue is zero. As the tax rate rises, revenue grows, but it grows less and less with each additional increment to the tax rate. At some high tax rate, revenue peaks and begins to decline. With tax revenue measured vertically and the tax rate measured from left to right, the tax-revenue plot or Laffer curve looks like the St. Louis arch: it slopes upward at a decreasing rate, reaches a maximum, and then declines.

For an economy beyond the peak of an income-tax Laffer curve, a cut in income tax rates is win-win: it incentivizes a large enough increase in income-earning activity that it more than “pays for itself.” The win-win argument was offered by some supply siders in support of the income tax rate reductions proposed by President Ronald Reagan in 1981.

Other economists granted the theoretical possibility but considered it far more likely that the United States was in practice on the upslope of the Laffer curve for income taxes. How much the suppliers of labor and capital would actually respond to cuts in personal and corporate income tax rates was an empirical question. Critics doubted, given econometric estimates of the sensitivity of labor supply to after-tax wage rates, that a 10 percent cut in income tax rates would spur more than a 1 to 2 percent increase in the quantity of labor supplied, whereas a 10 percent increase would be needed to make the tax cut pay for itself. These critics included Martin Feldstein, chairman of the Council of Economic Advisers (CEA) under Reagan, who favored the Reagan tax-rate cuts despite likely revenue losses, on the grounds of reducing deadweight losses, that is, improving the

⁵⁷ On the cocktail napkin incident see Domitrovic, *Econoclasts*, pp. 111–12. Some other prominent supply-side economists were Robert Mundell (Nobel laureate 1999), Norman Ture, and Paul Craig Roberts.

performance of the economy.⁵⁸ It turned out, as William Niskanen (also a member of Reagan's CEA) and Stephen Moore noted in a retrospective study, that following the Reagan tax cuts "[t]he budget deficit exploded in the 1980s.... [I]n 1981, the budget deficit was \$101 billion (in 1987 dollars) and 2.7 percent of GDP. In 1983 it peaked at \$236 billion and 6.3 percent of GDP." Niskanen and Moore dismissed the idea that policy makers had taken seriously any "pie-in-the-sky" Laffer curve arguments:

Supply-siders predicted their tax cuts would pay for themselves. This was nonsense from day one, because the credible evidence overwhelmingly indicates that revenue feedbacks from tax cuts is [*sic*] 35 cents per dollar, at most.... This is one of the great enduring myths of Reaganomics: that the White House relied on wild supply-side assumptions regarding the revenue impact of the tax cuts. The Reagan administration never assumed that the tax cuts would pay for themselves.⁵⁹

Studies of labor supply have estimated larger percentage responses to income tax cuts in the long run, but still not enough to make income tax cuts typically pay for themselves in a present-value sense. The fact that long-run response to tax-rate cuts is larger than the short-run response, James D. Gwartney has suggested, means that supply-side policies are more appropriate for promoting long-run growth than for antirecession policy.⁶⁰

Gwartney provided a helpful back-of-the-envelope example to show that labor-supply sensitivity to an income tax rate cut should not be assumed the same for taxpayers in all tax brackets but will naturally be greater for earners in higher tax brackets. For a taxpayer in a 75 percent tax bracket, a one-third cut in the income tax rate, to 50 percent, means that she can keep \$50 rather than only \$25 of the last \$100 she earns – a 100 percent increase in take-home pay per additional pretax dollar earned, doubling her incentive to earn additional dollars. For a taxpayer in a 15 percent bracket, by contrast, a one-third cut reduces her tax rate to 10 percent and increases her take-home pay to ninety dollars rather than eighty-five dollars from the last one hundred dollars earned. Her take-home pay rises by only 5.9 percent.

⁵⁸ Martin Feldstein, "American Economic Policy in the 1980s: A Personal View," in Feldstein, ed., *American Economic Policy in the 1980s* (Chicago: University of Chicago Press, 1995), p. 25.

⁵⁹ William A. Niskanen and Stephen Moore, "Supply-Side Tax Cuts and the Truth about the Reagan Economic Record," *Cato Institute Policy Analysis* no. 261 (22 October 1996). As did Feldstein, Niskanen and Moore thought the cuts were worth it in terms of improved economic performance.

⁶⁰ James Gwartney, "Supply Side Economics," in David R. Henderson, ed., *Concise Encyclopedia of Economics*, <http://www.econlib.org/library/Enc/SupplySideEconomics.html>.

Cuts in higher-bracket income tax rates can thus be expected to reduce tax revenues by a smaller percentage (come closer to paying for themselves, or even succeed) than equiproportional cuts in lower-bracket rates. A direct implication is that if income tax rates are cut in both high and low brackets by the same proportion, upper-bracket taxpayers will pay a larger share of the new tax revenue. The Reagan tax cuts did in fact have this result.⁶¹

THE KEYNESIAN MULTIPLIER

Ricardian equivalence relates to Case 1 as specified previously. If Ricardian equivalence holds, then the mix between current taxes and debt (future taxes) does not matter for determining aggregate income. It does not follow from Ricardian equivalence that the level of government spending does not matter. In Barro's words: "The Ricardian analysis applies to shifts in budget deficits and taxes for a given pattern of government expenditures; in particular, the approach is consistent with real effects from changes in the level or timing of government purchases and public services."⁶²

Consider two new cases:

- Case 2: Government increases its expenditures, financed entirely by current taxes. In terms of the budget identity, G goes up, T goes up, and ΔD and ΔM are constant.
- Case 3: Government increases its expenditures, financed entirely by new debt. G goes up, ΔD goes up, and T and ΔM are constant.

The Ricardian analysis *does* imply that distinction between Case 2 and Case 3 does not matter, that the impact of additional government spending on national income will be the same whether the spending is tax-financed or debt-financed.

The size of the impact of government spending is conventionally expressed by $\Delta Y/\Delta G$, the ratio of the change in gross domestic product or national income, ΔY , to the change in government spending, ΔG . The ratio is familiar to students of the Keynesian income-expenditure model as "the multiplier." The ratio is a "multiplier" because to figure the resulting change in Y , one takes the initiating change in G and *multiplies* it by the ratio, $\Delta Y = \Delta G \times (\Delta Y/\Delta G)$. Conceivably, the multiplier might be a positive number, zero, or a negative number.

⁶¹ Ibid.

⁶² Barro, "Ricardian Approach," p. 16.

During the heyday of the Hansen-Lerner approach, multipliers not only positive but larger than 1.0, derived from the Keynesian income-expenditure model, were taken for granted. With the waning of fiscal Keynesianism in the 1980s and 1990s, and the rise of new classical skepticism about the potential for actively using government spending to improve macroeconomic outcomes, not much was heard about the multiplier. During the recession of 2007–9, talk of a positive multiplier returned, and debate about its size moved off the back burner.

Obama administration economists used large multiplier estimates to promote the administration's economic "stimulus" spending proposals in 2009. Christina Romer, chair of the President's Council of Economic Advisers, and Jared Bernstein, chief economist of the Office of the Vice President, estimated that the administration's spending package would have a multiplier of 1.6.⁶³ A multiplier of 1.0 means that government spending is a free lunch: Total income rises by the full amount of the additional government spending, so no reduction in private income is required. A multiplier of 1.6 is better than a free lunch, as described by Otto Eckstein and Paul Krugman earlier in the chapter: each additional \$1.00 of government spending increases total income by \$1.60, including a 60-cent *increase* in private income.

Professional opinion during the recession did not all swing back to the fiscal Keynesian side. Thomas Sargent, the 2011 Nobel laureate, dismissed the Romer-Bernstein calculations as "back-of-the-envelope ones that ignore what we have learned in the last 60 years of macroeconomic research." He added that "President Obama should have been told that there are respectable reasons for doubting that fiscal stimulus packages promote prosperity, and that there are serious economic researchers who remain unconvinced."⁶⁴ Robert J. Barro similarly ridiculed the Romer-Bernstein estimates as "Voodoo Multipliers." Suppose the government spends on building a bridge, and the multiplier is greater than 1.0, he wrote:

In this scenario, the government spending is a good idea even if the bridge goes to nowhere or if government employees are just uselessly filling holes. This free lunch would make Charles Ponzi proud. If the deal is genuine, why stop with only \$1 trillion or so of added government purchases?

⁶³ Cristina Romer and Jared Bernstein, "The Job Impact of the American Recovery and Reinvestment Plan," 8 January 2009, http://otrans.3cdn.net/45593e8ecbd339d074_l3m6bt1te.pdf.

⁶⁴ Thomas Sargent, "Interview with Thomas Sargent," Federal Reserve Bank of Minneapolis *Region* (September 2010), pp. 32–3.

The Keynesian income-expenditure model, which underlies positive multiplier estimates,

implicitly assumes that the government is better than the private market at marshaling idle resources to produce useful stuff. Unemployed labor and capital can be utilized at essentially zero social cost, but the private market is somehow unable to figure any of this out. . . . A much more plausible starting point is a multiplier of zero.

On the empirical side, Barro had previously estimated that the multiplier associated with peacetime U.S. government purchases, over the period 1942–78, “was statistically insignificantly different from zero.”⁶⁵

A multiplier close to zero does not imply that there are no unemployed resources. It implies rather that any contribution that additional government spending makes to measured output, whether or not by hiring unemployed resources, is offset by the reduction in after-tax incomes, crowding out, and disincentive effects from the accompanying present or implied future taxes. Present or future taxes are entailed by the government budget constraint, holding monetary policy constant.

Proposals for large additions to government spending in response to the recession were also made in Europe. In a 2010 working paper, the economists Tobias Cwik and Volker Wieland of the European Central Bank used sophisticated “dynamic stochastic general equilibrium” methods to estimate “the impact of . . . the planned increase in government spending . . . because spending is supposed to exhibit the largest Keynesian multiplier effect.” Models of the kind they used are (somewhat confusingly) called “new Keynesian” models. The “Keynesian” part is the assumption of “price and wage rigidities,” although such features were as much part of Milton Friedman’s or F. A. Hayek’s thinking as of Keynes’s. The “new” part is forward-looking optimization by informed households and firms with model-consistent expectations. What Cwik and Wieland found, when they estimated the size of the multiplier in this way, was flatly inconsistent with the multiplier predictions of traditional Hansen-Lerner fiscal Keynesian:

In the baseline scenario, New-Keynesian models provide no support for a traditional Keynesian multiplier effect. The European spending plans would

⁶⁵ Robert J. Barro, “Demand Side Voodoo Economics”; Robert J. Barro, “Output Effects of Government Purchases,” *Journal of Political Economy* 89 (December 1981), pp. 1086–121. Another critical response to Romer and Bernstein was John F. Cogan, Tobias Cwik, John B. Taylor, and Volker Wieland, “New Keynesian versus Old Keynesian Government Spending Multipliers,” ECB Working Paper 1090 (September 2009), <http://www.ecb.int/pub/pdf/scpwps/ecbwp1090.pdf>.

result in a reduction in private sector spending for consumption and investment purposes. Households and firms reduce spending in anticipation of future tax burdens and higher interest rates.⁶⁶

THE GOVERNMENT'S TEMPTATION TO INFLATE AWAY ITS DEBT

We turn now to the case in which government takes advantage of the revenue potential from its power to issue money. Since ancient times, Adam Smith noted, rulers burdened with debt have resorted to debasing the currency. Debasement means, for example, reducing by half the amount of silver in a ducat, in order to mint two new ducats from the silver in one old ducat. Base metal such as copper or tin is added to keep the new coin the same size as the old. This was the monarch's method for creating additional money units to pretend to pay the government's debts while actually paying only half of the promised silver. Smith summarized the history:

For in every country of the world, I believe, the avarice and injustice of princes and sovereign states, abusing the confidence of their subjects, have by degrees diminished the real quantity of metal, which had been originally contained in their coins.... By means of those operations the princes and sovereign states which performed them were enabled, in appearance, to pay their debts and to fulfil their engagements with a smaller quantity of silver than would otherwise have been requisite. It was indeed in appearance only; for their creditors were really defrauded of a part of what was due to them.⁶⁷

Four hundred years before Adam Smith, the churchman Nicholas Oresme had cogently analyzed and denounced the practice of debasement.⁶⁸

The abandonment of silver- and gold-based monetary regimes, and the advent of government-issued irredeemable paper (fiat) money, did not of course end the practice by governments of issuing additional money and repaying their creditors in a less valuable monetary unit than was originally lent. The U.S. federal government borrowed so heavily to finance the Second World War that the federal debt-to-GDP ratio reached 130 percent in 1946. By 1970 the ratio had fallen to 40 percent. The denominator of the

⁶⁶ Tobias Cwik and Volker Wieland, "Keynsian Government Spending Multipliers and Spillovers in the Euro Area," ECB Working Paper 1297 (November 2010), <http://www.ecb.int/pub/pdf/scpwps/ecbwp1267.pdf>.

⁶⁷ Smith, *Wealth of Nations*, p. 43.

⁶⁸ See Nicholas Oresme, *De Moneta* (Of Currency) [c. 1355], trans. Charles Johnson, in Lawrence H. White, ed., *The History of Gold and Silver*, vol. 1 (London: Pickering and Chatto, 2000).

ratio, nominal GDP, is the product of real GDP and the price level. Much of the ratio's decline was due to growth in real GDP, but much was due to inflation, a rising price level. The price level more than doubled between the two dates, swelling GDP measured in dollars but not affecting the number of dollars owed on previously issued Treasury bonds. Creditors who bought thirty-year bonds in 1946 saw more than half of the real value of their principal inflated away.⁶⁹

Reducing the value of the monetary unit reduces the real burden of any existing debt denominated in that unit. Mounting government debt therefore increases the incentive for government to inflate. In a fiat money regime the central bank can “monetize” the government's debt, buying up Treasury bonds with newly issued money. This operation removes some interest-bearing debt from the public's hands. More important, the monetary expansion creates inflation that, when unexpected, erodes the real value of the debt that remains in the public's hands. In terms of the government budget constraint, $G = T + \Delta D + \Delta M$, we have:

- **Case 4:** Government issues new money to buy back debt from the public. G and T remain constant, ΔD goes down, and ΔM goes up by the same amount.

The Treasury can match the purchase of debt by the central bank by issuing an equal amount of new debt to finance additional expenditures, as in Case 3: G goes up, ΔD goes up, and T and ΔM remain constant. Adding together the operations in Cases 3 and 4, the net result is G up, ΔM up by the same amount, and T and ΔD unchanged. New government spending has been financed by expanding the quantity of government-issued money. Although the central bank has not literally printed paper currency notes and shipped them over to the Treasury for spending, the net result is the same.

One dollar of money creation finances spending just as one dollar of ordinary tax revenue does. The government's revenue from issuing money has the technical name of “seigniorage,” derived from feudal notion that having a mint monopoly and exploiting it for revenue were the prerogatives of the lord, or *seigneur*.⁷⁰ Because greater money creation causes greater inflation, using it to pay the government's bills is also known as “inflationary finance.” To add the seigniorage-financed spending operation explicitly to our list of cases:

⁶⁹ Eckstein, *Public Finance*, pp. 88–90.

⁷⁰ For a textbook analysis of ancient and modern-day seigniorage see Lawrence H. White, *The Theory of Monetary Institutions* (Oxford: Basil Blackwell, 1999), ch. 7.

- **Case 5:** Government issues new money to finance new government spending. G goes up, ΔM goes up by the same amount, and T and ΔD remain constant.

A major example of government spending *directly* financed by money creation in this way was the U.S. federal government's purchase of \$1.25 trillion in mortgage-backed securities in 2008–9 (an unprecedented operation labeled "Quantitative Easing 1"). The funds were not appropriated by Congress, but rather the Federal Reserve made the purchase on its own account simply by creating \$1.25 trillion in new government-issued money.

UNPLEASANT MONETARIST ARITHMETIC

During the early 1980s a group of economists then at the University of Minnesota and the Federal Reserve Bank of Minneapolis, Thomas J. Sargent, Neil Wallace, and Preston Miller, spelled out a worrisome potential connection between the growth of government debt and the resort to inflationary finance. Their basic message was that the ability to finance government spending with debt will eventually hit a ceiling, leaving money creation the only method left for covering continued budget deficits. The resulting inflation cannot then be stopped, because money creation cannot be stopped, unless there is a fiscal reform: "the monetary authority is forced to create money" to satisfy a need for revenue.⁷¹

In a much-discussed 1981 article entitled "Some Unpleasant Monetarist Arithmetic," Sargent and Wallace asked their readers to consider a fiscal and monetary regime in which the fiscal authority (say, the Congress) first announces the path of future budget deficits. By rearranging the budget constraint, we see that the size of a budget deficit ($G - T$) must be matched by the sum of new borrowing and monetary expansion:

$$G - T = \Delta D + \Delta M.$$

In other words, a budget deficit implies some combination of bond finance and inflationary finance.

To explain the limit on bond finance, Miller and Sargent in 1984 defined G as spending on things other than debt service and defined ΔD as the proceeds from borrowing *net* of debt service (i.e., net of interest and principal

⁷¹ Thomas Sargent and Neil Wallace, "Some Unpleasant Monetarist Arithmetic," Federal Reserve Bank of Minneapolis *Quarterly Review* 5 (Fall 1981), pp. 1–17. See also Thomas J. Sargent, *Rational Expectations and Inflation* (New York: Harper and Row, 1986).

payments on the public debt). From an ordinary upward-sloping supply curve for loanable funds it follows that the real interest yield required by bond buyers (lenders) rises with the volume of a government's debt, other things equal. The size of ΔD then eventually hits a ceiling for "Laffer curve" – reasons. At some high ratio of debt to GDP, issuing new debt is a wash (nothing is gained for government spending) because the rising bond yield demanded by the market raises the cost of debt service on the entire debt (as it is rolled over) by as much as the new amount borrowed. Only inflationary finance then remains to meet ongoing deficits.

To avoid this "unpleasant" fate, Sargent and Wallace advised, the path of deficits must be kept in check. They suggested that the monetary authority should announce its plans for future money growth first, thus limiting the feasible path of deficits. Alternatively, a switch from fiat money regime to a commodity money regime could effectively restrict the path of M . As Sargent commented elsewhere:

Remember that under the gold standard, there was no law that restricted your debt-GDP ratio or deficit-GDP ratio. Feasibility and credit markets did the job. If a country wanted to be on the gold standard, it had to balance its budget in a present-value sense. If you didn't run a balanced budget in the present value sense, you were going to have a run on your currency sooner or later, and probably sooner. So, what induced one major Western country after another to run a more-or-less balanced budget in the 19th century and early 20th century before World War I was their decision to adhere to the gold standard.⁷²

Sargent here seemed to assume that a government central bank issues the country's gold-redeemable currency and bears the brunt of a speculative attack. Many countries under the classical gold standard before the First World War, such as the United States, Canada, and Australia, had in fact no central bank, but instead had decentralized private note issue. A more general statement of the disciplinary mechanism would be: If a country did not run a balanced budget in the present-value sense (spending balanced by present taxes or a credible commitment to future taxes), the international bond market would put a high default premium on its bonds, which had to be repaid in gold, eventually making further bond finance impossible.

Why did the same discipline not constrain Greece, which could not print euros to repay its bonds just as a gold-standard country could not print gold? Why did the international bond market not put a higher default premium on its bonds sooner? Purchasers of Greek sovereign debt apparently bet on

⁷² Sargent, "Interview," p. 36.

the willingness of the European Central Bank to print enough euros to bail out the Greek government (or for the European Union to come to the rescue). For a time, it looked like the bondholders would win that bet. The gold standard, by contrast, offered no possibility of bailouts for over-indebted countries, and so it better controlled the moral hazard of over-borrowing.

Some critics regarded Sargent and Wallace's scenario as far-fetched. In a 1984 comment, Michael Darby argued that their model was "seriously wrong as a guide to understanding monetary policy in the United States." An economy reaches the "unpleasant" zone in their model when the real yield on government bonds exceeds the economy's growth rate. The real yields on U.S. Treasury bonds and bills from 1926 to 1981, Darby pointed out, had averaged close to 1 percent per annum, while the economy grew at around 3 percent per annum. Deficits were financed by new debt without the real yield appreciably rising or the revenue from bond finance coming close to a ceiling. The monetary authority's hands were therefore never tied by fiscal policy, and it could choose the rate of money creation independent of the size of the deficit.⁷³ The United States, one might say, remained in Pleasantville.

In a reply, Miller and Sargent emphasized that the real yield on government bonds is not given but rises with the real debt or debt-to-GDP ratio. Darby's evidence about the United States' past does not rule out that the real yield on U.S. government bonds will someday rise above the economy's growth rate if the debt-to-GDP ratio rises far enough (a point Darby had already conceded in theory but thought far from currently relevant). They noted two other long-run effects working toward unpleasantness as the debt-to-GDP ratio rises: (1) Private capital and real income decline as government debt crowds out capital formation; GDP growth slows and the deficit grows relative to GDP; and (2) the real demand to hold money falls as bond yields rise; therefore, the tax base for real seigniorage falls. As if anticipating the events in Greece and Ireland twenty-five years later, they warned that a large jump in the size of government budget deficits can push a previously pleasant economy into the unpleasant zone where real government bond yields rise above the economy's growth rate and the debt-to-GDP ratio begins to grow without limit.⁷⁴

Sargent would go on to explain the Greek and Irish fiscal crises by applying the unpleasant-arithmetic argument. Despite the European Central

⁷³ Michael Darby, "Some Pleasant Monetarist Arithmetic," Federal Reserve Bank of Minneapolis *Quarterly Review* 8 (Spring 1984), pp. 15–20.

⁷⁴ Preston J. Miller and Thomas J. Sargent, "Reply to Darby," Federal Reserve Bank of Minneapolis *Quarterly Review* 8 (Spring 1984), pp. 21–6.

Bank's rules against any member country's running a large deficit or accumulating a high debt-to-GDP ratio,

a number of countries at the European Union economic periphery – Greece, in particular – violated the rules convincingly enough to unleash the threat of unpleasant arithmetic in those countries. The telltale signs were persistently rising debt-GDP ratios in those countries. Of course, the unpleasant arithmetic allows them to go up for a while, but if that goes on too long, eventually you're going to get a sovereign debt crisis.⁷⁵

Time will tell whether – or how soon – the governments of Japan, the United States, the United Kingdom, or other countries will have a debt crisis. But anyone who has observed events in Greece and Ireland, and who sees government debt rising in his or her own country, has good reason to regard the unpleasant scenario of a sovereign debt crisis as increasingly relevant.

⁷⁵ Sargent, "Interview," p. 36.